Bailont during Burn (COL. Anom. # 45) INPUT DATA

-1372715.710

6047567 • 910

2415654 • 150

VERIFICATION NO : C4-18A TEST TAPE : WEDB RUN : 6 AGC PROG : COLOSSUS237 VEHICLE CONFIGURATION MODE: 1 CSM MASS 26518 • 82537 ORBIT - ACTIVE VEHICLE MODE : 1 R, V-REFERENCE COORD TIME 1551 + 000000 ٧Z 6043233.570 2377189.620 -1351033+440 -3191 +830000 6145.517000 -3501.810000 PLATFORM ORIENTATION MODE: 2 NOMINAL ATIME *0000000000 VEHICLE ATTITUDE MODE: 2 NOMINAL ATIME .00000000000 ORBIT - PASSIVE VEHICLE MODE: 1 R.V-REFERENCE COORD

-3228+602000

٧Z

-3482:747000

6112 • 715000

ACTIVE VEHICLE - CSM

AIG •2084408316E=09 TIME 1638 * 390000

5829 937696

VY 5795•887709 -3321 + 871567

VZ -3302:124500

ACTIVE VEH	CEC - COL	11.05 1030 # 33	0000
STATE VECTOR - CM			
X 5733260•000	Y 2900910•000	Z -1649454 • 000	VX -3895•957041
STATE VECTOR - LM		,	•
X 5734672 • 000	Y 2936448∗000	Z -1669436+000	VX -3926 • 076651
RELATIVE POSITION			
RANGE 40794 • 24345	AZIMUTH 3672678125	ELEVATION 32 • 18586145	RANGE RATE -40+37774726
PLATFORM ORIENTATION			
	- (4122230443 -7915908127	4510611345
	TSR = (•0004209526 4949168604	8689402304
	(91108286373583870624	•2036829127
VEHICLE ATTITUDE			
	(4122230443 .7915908127	4510611345
	TVR = (•00042095264949168604	8689402304
	(91108286373583870624	•2036829127

-.1984666122E-11

AOG

•7093909161E=10

AGC DATA LOAD

TEPHEM	1706	00010	12300	10700			
AZO UNITW	1711 1713	30636	33226 13204	00000	30310	37777	37777
504LM	2007	77777	61657	77763	66026	00004	05670
PBIASX PIPASCFX	1452 1453	00000					
PBIASY	1454	00000					
PIPASCFY	1455	00000					
PBIASZ PIPASCFZ	1456 1457	00000					
NBDX	1460	00000					
NBDY	1461	00000					
NBDZ ADIAX	1462 1463	00000					
ADIAY	1464	00000					
ADIAZ	1465	00000					
ADSRAX	1466 1467	00000					
ADSRAZ	1470	00000					
RRECTCSM VRECTCSM	1554 1562	00256 66205	36706 45462	00130 16446	20727 12177	77715 67544	65150 40107
TETCSM	1570	00011	37777	10440	161//	0/344	40107
DELTACSM	1572	00000	00000	00000	00000	00000	00000
NUCSM RCVCSM	1600 1606	00000	00000 - 36706	00000	00000 20727	00000 77715	00000 65150
VCVCSM	1614	66205	45462	16446	12177	67544	40107
TCCSM	1622	00000	00000				
XKEPCSM RRECTLEM	1624 1626	00000	00000	00131	23500	77715	41541
VRECTLEM	1634	66136	63714	16372	27437	67575	50765
TETLEM DELTALEM	1642 1644	00011	37777	00000	00000	00000	00000
NULEM	1652	00000	00000	00000	00000	00000	00000
RCVLEM	1660	00257	00210	00131	23500	77715	41541
VCVLEM TCLEM	1666 1674	66136 00000	63714 00000	16372	27437	67575	50765
XKEPLEM	1676	00000	00000				
REFSMMAT	1735	71317	42147	14524	26620	70620	75017
		00003 61330	16263 55060	70051 72210	64407 42766	62061 03204	64420 22201
RN	1170	01330	36706	00130	20727	77715	65150
VN	1176	66205	45462	16446	12177	67544	40107
PIPTIME R-OTHER	1204 1721	00011	37777 00210	00131	23500	77715	41541
V-OTHER	1727	66136	63714	16372	27437	67575	50765
.TIME2	0024.	00011	37777.				

AGC DATA LO	AD - CARDS	+ CONSOLE			
0034	DCT-	00000		0034	-00000
0077	BCT	10000		0077	10000
1074	BCT	37777		1074	37777
1341	- BCT	-00005		1341	00005
1717	OCT	37777		1717	37777
1720	BCT	37777		1720	37777
2000	BCT-	-00037		2000	00037
2001	BCT	00244		2001	00244
2002	BCT	05516		2002	05516
2003	- GCT	00165		-2003	00165
2021	BCT	00002		2021	20000
5055	OCT	22020		2022	22020
2023 -	- OCT-	- 00005		2023	20000
2024	OCT	22020		2024	22020
2033	BCT	00010		2033	00010
2.034	OCT	21555		2034	21555
2035	ест	14155		2035	14155
2036	OCT	00011		2036	00011
2037	OCT	04245		2037	04245
2040	OCT	77772		2040	77772
2041	BCT	65307		2041	65307
2042	- GCT	77775		2042	77775
2043	ect	42200		2043	42200
2044	ect	77753		2044	77753
2045	OCT	.63132		2045	63132
2046	OCT	77760		2046	77760
2047	ect	70021		2047	70021
2050	ect	77767		2050	77767
2051	BCT	65166		2051	65166
2052	BCT	77731		- 2052	77731
2053	BCT	7.0406		2053	70406-
2054	OCT	00061		2054	00061
2055	8CT	01657		2055	01657
2056	BCT	.00038		2056	- 00035
2057	BCT	35137		2057	35137
2060	BCT	00136		2060	00136
2061	0.CT	37524		2061	37524
2062	BCT	00006		2062	00006
2063	ect	37257		2063	37257
2064	BCT	00003		206.4	00003
2065	6CT	26176		2065	26176
9902	OCT	77510		2066	77510
2067	8.CT	72544		2067	72544
2070	BCT	77672		2070	77672
2071	ect	74056		2071	74056
2072	ect	77732		2072	77732
2073	OCT	46600 .		2073	46600
2074	BCT	00215		2074	00215
2075	BCT	26454		2075	-26454-
2076	OCT	01336	1	2076	01336
2077	OCT	00225		2077	00225
2100	ect	00655		2100	00955
2101	OCT	20526		2101	20526

2102	0.07	04014				0100	
	OCT	04214				2102	04214
2103	BCT	37431				2103	37431
2104	OCT	76557				2104	76557
2105	BCT	43104				2105	43104
2106	OCT	77227				2106	.77227
2107	BCT	42446				2107	42446
2110							
	OCT	74722				2110	74722
2111	OCT	40726				(2111	40726
2112	-BCT	71105				2112	71105
2113	OCT	61047				2113	61047
2114	OCT	74172				2114	74172
2115	BCT	62162					
						2115	62162
2116	OCT	67045				2116	67045
2117	OCT	54520				2117	54520
2120	OCT	- 03333				2120-	03333
2121	OCT	05765				2121	05765
2122	ect	01703				2122	01703
2123	ect						
		33373				2123	33373
2124	BCT	02172				2124	02172
2125	OCT	15722				2125	15722
2126	BCT	04675				2126	04675
2127	OCT	02720				2127	02720
2130	OCT	02525				2130	02525
2131	BCT	27227					
6131						2131-	27227
2132	OCT	21256				2132	21256
2133	OCT	17662				2133	17662
2134	BCT.	00641				2134	00641
2135	OCT	11730				2135	11730
2136	OCT	00264				2136	00264
2137	BCT	37026					
						2137	37026
2140	BCT	77260				2140	77260
2141	OCT	73076				2141	73076
2142	- OCT	21076				2142	21076
2143	OCT	32653				2143	32653
2144	BCT	07331				2144	07331
2145	DCT	30536					
						2145	30536
2146	OCT	00536				2146	00536
2147	BCT	20517				2147	20517
3002	BCT	27231				3002.	27231
3003	OCT	10543				3003	10543
3004	ect	00000				3004	00000
3005	BCT	00000				3.0.05	
							-00000
3006	OCT	73265				3006	73265
3012	BCT	00005				3012	00005
3013	BCT	00123				3013	00123
3014	BCT	00077				3014	00077
3015	SCT	00071				3015	00071
3016	ect	17433				3016	1.7433
3017	OCT	04222				3017	04222
3020	OCT	00002				3020	20000
3021	OCT	- 00006				3021	-00006
3022	BCT	10000				3022	10000
3023	OCT	01000				3023	01000
3024	BCT	00032				3024	
							00232
3025	OCT	77604				3025	77604

3037 3040	OCT OCT	74664 14414		3036 3037	57377 74664
3041		36243		3040 3041	14414
3043	6CT 6CT	74624 73117		3042 3043	74624
3066	BCT-	11103		3066	11103
3067 3074	ect ect	11111		3067 3074	11111
3424	ect ect	10000		3424 3655	-10000
3656	BCT	25317		3655 3656	00025
0110	BCT BCT	01160		0110	01160
1036	ect	00000		1036	00000
1356	8CT 8CT	02062		1353 1356	020656
2377	SCT	00000		2377	00000

TAPE WEDB RUN 6 VERIFICA	TION C4.18A TEST RUN DA	ATE 10/23/68 EDIT DATE 230CT68	SDS TIME 1640 AGO	TIME 1639+56 ID 7	77 PAGE 1
PROGRAM VERB 21 PROGRAM VERB 21			00025 FLASH 0 00025 FLASH 0	DSPTAB +11 00000 DSPTAB +11 00000	
SDS REFERENCE M 41223364 .79159081 -0004209549491686 9110828635838706	45106113 86894023	AGC REFERENCE MATRIX *41222304	06113 4122	31686 49497294	-•45106578 -•86890769 •20380950
REFSMMAT ER GIMBAL ANGLE Y# *000 AIG= -*00 Z= **000 AMG= *00 X= *000 A6G= *01	00 -00	DU AGC SHAFT SDS SHAFT 0103 10.99 00 AGC TRUN SDS TRUN 00 .01 113.35	R ERROR	DR LUS ALT .00 .00 .00 .00 .00 .00 .00	L0S CR .
STATE VECT RX SDS CM 5725335.1 AGC CM 5725335.1 DELTA .0	RY RZ 2912736 • 6 -1656192 2912736 • 6 -1656192		5821 • 87 - 331	VZ RSS 17*27 7758*94 17*27 7758*94 *00 **00	TIME 1640:42
SDS LM 5726686*1 AGC LM 5726686*1 DELTA •0	2948205.5 -1676134 2948205.5 -1676134 0			77.51 7740.17 97.51 7740.17 .0000	1640.42
POSITION LAT SDS CM +14.55 SDS LM -14.68	LBNG ALT -18.91 256909 -18.63 278740	·9 282612·2 253710·6		VATION RANGE 32.24 40713.0	RANGE RATE *40.35
FLAGWD 0 00000 FLAGWD 1 FLAGWD 8 00000 FLAGWD 9 RCSFLAGS 40011 RCSFLAGS FAILRG+1 00000 FAILRG+2 HBLDFLAG 77776 DAPDATR1 CHAN 13 00100 CHAN 14	00000	FLAGWD 3 10000 FLAGWD 4 00000 RSBBQ+1 03304 CADRFLSH 56016 PIPA Y 77775 PIPA Z 77540 REDBCTR 00000 IMBDE 30 36001 CHAN 31 37777 CHAN 32 77777	CADR+1 73174 CAU FLAG 10 00000 FL/ IMBDE 33 26000 CH/	DR+2 10132 FAILREG	00000
CDUX	CDUY .1098633E=01 AD0T/089 .3407679 THETAD Y -64.36890 MRKIIME1 404463.1 MRKIIME2 2368.290 HAP0 84000.00 VGTIG Z 1078.389 AK1 -57.75513 BGC .0000000 LEMMASS .0000000 LEMMASS .0000000 THETAD Z 15.16113 JET FUEL 3.000366	AK1 THETAD Z 10+53589 STAR X1 +7653723E-01 STA STAR X2 +1118258E-03 STA HPER +2709327E 08 RSP AD0T/ +3012188 AD0 AK2 2+186279 THE 1GC +0000000 CSMMASS 26520+00 ERR WB0D/0CP -3-980499 WB0 S/C MASS 1788+571 X C	2372.820 R Y1236/206E-01 R Y2 1-219482 -RREC 575738.0 T/AD X -5163574 +1301066 0RX -142823 D/ECY 5621408E-01	ADBT/ =.3012188 AK2 2.186279 BEST I .0000000 STAR Z1 .5000000 VGTIG X .85-17761 ADBT/8BY .3407761 THETAD Y .644,36890 TEVENT 2372-820 ERRBRY 2372-820 ERRBRY 58-55713 THETAD X 5-778809 Y CG .3071489 IYY 79900.74	

1 .000000

YGYR88UT +0000000

ARSMM/S2 .4893284E=02

AXSCM/S2 ++9327403E+03

ZGYR88UT .0000000

AYSCM/S2 -- 1329155E-02

AXSMM/S2 -- 9338093E=03

WY DEG/S .1049118E-01

AZ\$CM/S2 +4605405E-02

AYSMM/S2 - . 1333495E=02

WZ DEG/S

XGYROOUT

AZSMM/S2

*3497057E=02

.4614544E-02

.00000000

CONFIG

PREGRAM VERB 21	NOUN 15	K1 37777	R2	R3 00025	FLASH O		3 +11 00000	
PROGRAM: VERE 21	ROOK 15	KI 2////	N.C.	113 00023	, ENOU O	DOLINE	7 +11 00000	
SDS REFERENCE 1	MATRIX	- AGC R	EFERENCE MATE	RIX		- S/C ATT	TITUDE - MATRI	Χ -
41222304 · 79159081	-+45106113	- • 41222304	•79159081	-,45106113	9 (28719282	·82805347	- * 48150468
*00042095 49491686			49491686	86894023			49100709	-,87008953
-+9110828635838706	.20368291	91108285	35838706	• 20368291		95690346	~ • 27062583	*10534310
REFSMMAT ER GIMBAL ANGLE	E	COLL 10C	CHAFT CDC	CUACT		1.00.00	180 417	100 00
Y= -*000 AIG= 7*65	ES SUS COU AGC	LDU AGU	SHAFT SDS	30AF	Conen .	LUS UK	LUS AL!	LUS LK
Z= = *000 AMG= *48	•48	• 47 AGC	TRUN SD	TDIN V	EDDAD	+00	*00	• 00
X= .000 A0G= -2.41		• 34			EKKUK	* 00	* 00	* 00
A- ************************************	2071	• 5 4	*01	5.00				
STATE VECT RX	RY RZ	RSS			VY	٧Z	RSS	TIME
SDS CM 5489817*8		0.2 66342	19.0 -43	48+83 5	582 • 23	-3180+58	7758 • 20	1697 • 42
AGC CM 5489817 • 8			19.0 =43		582.23	*3180°58	7758 • 20	
DELTA •0	• 0	• 0	• 0	• 00	• 00	• 00	*** 00	
SDS LM 5489581+3	3271389+3 -186026	0.2 66556	78 • 7 = 43	74.58. 5	547.83	*3160 * 66	7739.84	1697+42
AGC LM 5489581 • 3					547 - 83	-3160+66		
DELTA •0				*00	•00	•00	00	
POSITION LAT				GEE A		ELEVATION		RANGE RATE
SDS CM +16.22			794 • 1 2539		~ . 43	33.80	38434 • 2	-39 - 59
SDS_LM=16.33	-15.32 27919	0.3 5818	343 • 1 2767	42.40	**			
FLAGWD 0 00000 FLAGWD 1	00000 FLAGWD 2 00000	FLAGWD 3 10	0000 FLAGWD 4	00000 FLAG	WD 5 40200	FLAGND 6	OCOOD FLAGWE	7 00100
FLAGND 8 00000 FLAGND 9	00000			W				
RCSFLAGS 40011 RCSFLAGS	40011 RSBBQ 66102	RSBBQ+1 03	3304 CADRFLSH	56016 CADR	+1 73174	CADR+2	10132 FAILRE	G 00000
FAILRG+1 00000 FAILRG+2	00000 PIPA X 77752	PIPA Y 77					00000 BPTM8D	
HOLDFLAG 77776 DAPDATR1	11103 DAPDATRZ 11111	REDOCTR OF	0000 IMBDE 30	36001 IMBD	E-33-26000	CHAN 11	01000 CHAN 1	5 00000
CHAN 13 00100 CHAN 14	00000 CHAN 30 37373	CHAN 31 37	7777 CHAN 32	77777 CHAN	33 67765			
CDUX -2.241211	CDUY 7.239990	CDUZ	.4504395	CDUT.	-19-76440	AD0T/	= :3012188	
AD8T/88P -1.256434	AD0T/08Y +3407679	AK	•0000000			AK2		
THE TAD X5163574	THETAD Y -64.36890		10 • 53589		2372.820	BEST		
BEST J •1666667	MRKTIME1 404463.1	STAR X1	.7653723E+01	STAR Y1	- · 2367206E	-01 STAR	Z1 • 5000000	
STAR RS1 .5063776	MRKTIME2 2368 290	STAR X2	1118258E-03	STAR Y2	1.219482	STAR		
STAR RS2 1.219482 -	MRKTIME2 2368+290 HAP0 84000:00		•2709327E 08	RSP-RREC	575738 • D	VGTIG	X -85 • 17761 8BY • 3407679	
VGTIG Y 409.6725	VGTIG Z 1078+389	ADOT/		ADOT/OBP	-1 - 256434	AD8T/	8BY •3407675	
AK *0000000	AK1 -57.75513		2.186279				D Y -64.36890	
THETAD Z 10.53589	4GC • 0000000	IGC	.0000000	MGC	•1301066	TEVEN		
LAUNCHAZ -49.97680	LEMMASS .0000000	CSMMASS	26520.00		1428223	ERROR		
ERRORZ -2.208252	WB0D/0CR3902782 THETAD Z 15-16113	WB0D/0CP	-3.980499		•5621408E		D X 5.778809	
THETAD Y =111.4453	THETAD Z 15.16113	S/C MASS	1788,571	X CG			*3071489 79900.74	
Z CG .5077438	JET FUEL 3,022461 IXY 2036+133		=7.886368 246.1853	IXX	1424.454	IYY	79900.74	
IZZ 84710+12 WY DEG/S +2552852	WZ DEG/S +2447940E=0	IXZ CONFIG	1.000000		•1818844E		G/S8392937 /S21422429	
AZSCM/S2 +6109449E=02	XGYR86UT +0C00000		•0000000		*0000000		/S2 •2670623	
AYSHM/S2 1151820E-02	AZSMM/S2 +5875369E-01		*6555827E =02		-0000000	AASIM	/UL * EU/ UDE	C-05
Wighting - ATTOTOCOFFERE	45014.405 *10403005-01	- 4401111705	+000000271-02					

TAPE WE	EDB RU	N 6 VERIFIC	ATION C	4.18A TES	T RUN (DATE 10/	23/68 ED	IT DATE 2	30CT68	SDS	TIME	1759	AGC TIME	1758+86 ID	777 PAGE 3
PROGRAM	M. 00	VERB	N	OUN		R1	R2		R3		FLAS	SH O	DEPT	AB +11 00000	
PROGRAM	M 00	VER8	N	8UN		R1	RZ		· R3		FLAS			AB +11 00000	
	SDS	REFERENCE	MATRIX			AG		ENCE MAT					S/C AT	TTITUDE MATR	IX -
** 4122		*79159081 **49491686		106113		• • 412223		9159081				* * 1	10642123	*86656952	- + 48757720
= .9110		35838706		894023 368291		•000420 •911082		9491686 35838706	**8689 *2036	8291	(19088173 97582698	49904609 00311255	84529114 21852160
REFSMM	AT ER	GIMBAL ANGL		DS CDU	AGC (CDU	AGC SHAF	T SDS	SHAFT			L	.0S DR	LAS ALT	LOS CR
	.000	A1G= 3C+45		30.45				1			ERROR		+00	00	**00
Z= X=	*000	AMG=30 A0G= -11.01		~:30	-10	30	AGC TRU		S TRUN	٧	ERROR		+00	+00	*00
				RY				-	-						
STATE Y		RX 5206017•0			-2033625	5.6 6	RSS 634763+6		02 • 00		v ^Y 293•57		VZ •3015•91	RSS 7757•37	TIME 1759+42
AGC CI		5206017+0			-203362		634763.6		02.00		293.57		3015.91	7757.37	1/39*42
DELTA		• 0		· O		+ 0	* (•00		•00		• 00	00	
SDS L		5204321.7			-205120		655795 • 2		23.34		259 . 21		-2996 - 03	7739.51	1759.42
AGC LI		5204321.7			-205120		655795 • 2		23.34	5	259.21		2996.03	7739.51	
DELTA		•0		* 0		*0	* ()	*00		•00		• 00	00	
POSITION SDS C		LAT +17+96		L0NG -11.89	25861		APOGEE 280874 • 7		GEE 78 * 7	A	ZIMUTH		ELEVATION		RANGE RATE
SDS LI		-18:06		=11.65	27966		280892 : 1		23.0		50		35 • 61	36008.5	-38.64
FLAGWD			00000	FLAGWD 2	00400	FLAGWD	3 10000	FLAGWD 4	00000	FLAG	WD 5 41	0200	FLAGWD 6	20000 FLAGW	D 7 00100
FLAGWD RCSFLA				RSBBQ	66102	PSRB0±1	03304	CADRFLSH	56016	CADR	±1 6	4051	CADR+2	10132 FAILR	EG 00000
FAILRG-		OC FAILRG+2	00000	PIPA X	77752	PIPA Y	77770	PIPA Z	77417	FLAG	10 00	0000	FLAG 11		DES 00120
HOLDEL								IMODE 30					CHAN 11	01000 CHAN-	12 00040
CHAN 1	3 401	00 CHAN 14	00000	CHAN 30	37373	CHAN 31	. 37777	CHAN 32	77777	CHAN	33 6	7765			
CDUX		.62378	CDUY	29 * 80		CDUZ		307129	CDUT		-19.76		AD8T,		
AD01/0				BY -3407		AK THETA		000000 174805	AK1		-57 - 75!		AK2	2 • 18627	
BEST J		666667		E1 40446		STAR		553723E=01	TIG	V 4	2372 - 2367		BEST STAR		
STAR R				E2 2368		STAR		18258E=03			1.219		STAR		
STAR R			HAPO	84000		HPER		709327E 08			57573		VGTI		
VGTIG		9.6725	VGTIG			ADOTA		336643			. 5021			/BBY .904239	
AK		0000000	AK1	.0000	000	AK2	.00	000000	THET	AD X	-7.426	758	THET		
THETAD			BGC	+0000		IGC		000000	MGC		+1301	066	TEVE	VT 2372.82	.0
LAUNCH			LEMMAS		000	CSMMA		00.05			4394				
ERRORZ		197266E-01	WBOD/F	CR -0000	000		0CP .00				*0000			AD X 5,77880	
THETAD				Z 15 • 16			1ASS 17		X CC		8 • 466		Y CG		
Z CG		5077438		JEL 2.755			H AR -7 .				31119		IYY		
977		710-12		2036			0.6				4 5 0 5			to in antoble	

246 - 1853

1.000000

.6356430E-02

YGYROOUT .000C000

IYZ

1424 . 454

AXSCM/S2 - 9327403E-03

ZGYR88UT .0000000

IZZ

WY DEG/S

AZSCM/S2

84710.12

AYSMM/S2 + + 2216435E - 03

·8392937E=01

.6109449E-02

IXY

WZ DEG/S

XGYROOUT

AZSMM/S2

2036 • 133

.0000000

*8742643E-01

.5889903E-02

IXZ

CONFIG

ARSMM/S2

WX DEG/S -- 1853440

AYSCM/S2 -- 1422429E-02

AXSMM/S2 .2379942E-02

PROGRAM 20 VERB 16	NOUN 45	R1 +00 00 R2	+00 02 R3 +3	5999 FLASH 0	-DSPTAB -	-11 00000	
SDS REFERENCE 41222304 -79159081 -0004209549491686 9110828635838706	~*45106113 ~*86894023	•00000000 •00 •00000000 •00	NCE MATRIX 000000 •0000 000000 •0000	0000	·49552202 •18375635	47644520	-+33758211 -+85978723 -+38315153
REFSMMAT ER GIMBAL ANGL Y= *000 AIG= 54*23 Z= *000 AMG= *5*89 X= *000 AGG= *8*81	54 • 23 54 • 5 • 89 • 5	CDU AGC SHAFT •34 *•03 •89 AGC TRUN •81 •01	10.99	R ERROR V ERROR	Les DR 62.40 01	LOS ALT -62:48 03	L0S CR -17.53 01
STATE VECT RX SDS CM 4905340.6 AGC CM 4905330.8 DELTA 9.8	3883738 • 9 -220941 3883786 • 3 -220941	4.0 6635327.9	-5216 • 42 -5216 • 43 -02	VY- 4987•86 4987•86	VZ -2841 • 49 -2841 • 48 -•01	RSS 7756 • 53 7756 • 54	TIME 1819•42
SDS LM 4902488 • 1 AGC LM 4902545 • 7 DELTA -57 • 6	3913659.0 -222579		=5233+69 *5233+67 =+02	4953•90 4953•90 -•00	-2821 * 86 -2821 * 87 • 01	7739.22 7739.21 .01	1819*42
SDS CM -19.57 SDS LM -19.66	-8.25 25952 -8.02 28011	4.7 279977.4	PERIGEE 254401•1 277267•2	AZIMUTH -•58	ELEVATION 37.48	33720.2	RANGE RATE -37.62
FLAGMD 0 00310 FLAGWD 1 FLAGWD 8 50000 FLAGWD 9 RCSFLAGS 00001 VHFCNT CADR+2 10264 FAILREG HBLDFLAG 77776 DAPPATRI CHAN 13 00100 CHAN 14	00400 00000 IRKMKCNT 00000 00000 FAILRG+1 00000 11103 DAPDATR2 11111	FLAGWD 3 10014 RCSFLAGS 00001 FAILRG+2 00000 REDOCTR 00000 CHAN 31 37777	RSBBQ 66102 PIPA X 77751 IMBDE 30 36001	RSBBG+1 03304 PIPA Y. 77770 IMBDE 33 26000	CADRFLSH 560 PIPA Z 770 CHAN 11 010	016. CADR+1. 233 8PTM8DE	64051 S 00120
CDUX -8.800049 ADBIZOBP -5119667E-01 THETAD X 8283691 RTARG X 1199968 MARKCDUY 6.888428 MO000000 DELVSLVX -4663740E-02 RRATE -15.93809 AK1 1208496 ELEV -41.07942 DELV3 Z 2.607441 FRRBRY -1098633	CDUY 54.37134 ADB1/BBY1198948E-01 THETAD Y 54.33838 RTARG Y 1421296. MARKCDUS 1.274414 TP1 2018630. DELVSLVY8106232E-02 ADB1/ .3315881E-02 ARZ949488 CENTANG 61.50000 DELV3 S 22.88678 ERRORZ .5053711	THETAD Z =6.39 RTARG Z =2726 MARKCDUZ =2.13 ECSTEER 1.00 DELVSLVZ .354	33574 AK1 14043 TIG 14040 VHFT 131348 MARK 10244 DELV 131505E-01 DELV 131505E-01 AD0T 131601 THET 14000 GENW	*1098633 2372-820 1768-210 1700000 17000000 1707 1707 1707 1707	THETAD DELV3 Y ERRORX	X 45.00000 3550.230 12236.00 .5163574 Z =6,394043	
THETAD.X -8.283691 LNG(SPL) -152,2167 Y CG -3071489 TYY -79900.74 WX DEG/S -38-6763E-C1 AYSCM/S2 -11668977E-C2 AXSMM/S2 .3357354E-C2	THETAD Y 54.38232 VPRED 7701.699 Z CG .5077438 IZZ 84710.12 WY DEM/S2098235E-01 AZSCM/S2 .4451213E-01 AYSMM/S2 .4633185E-01	THETAD Z =6.35 GAMMAEI =114, JET FUEL 10.4 IXY AUX DEG/S =-6.95 XGYR00UT +0.00	74043 RTHE 14775 S/C 14238 SL08 14238 IXZ 14134 CONF 100000 YGYR	TA 32.56187 MASS 1788.571 SH AR =7.886368 246.1853	LAT(SPL X CG IXX IYZ AXSCM/S ZGYROOU) 27.92083 8.466005 31119.44 1424.454 2 .0000000	

pRØGRAM 35 VERB	Neun	R1 R2	R3	FLASH 0	DSPTAB +1:	00000
SDS RFFERENCE 1 .79159081 .00042095 .49491686 .991108286 .35838706	*ATRIX -*45106113 -*86894023 *20368291	*0000000 -0000 *0000000 -0000 *0000000 +0000	00000 +000000	000 . •	19531393 - • 46	DE MATRIX 177533132845640- 606518786582446 450760837744451
REFSMMAT ER GIMBAL ANGLE Y= *000 AIG= 52*77 Z= *000 AMG= #6*84* X= *000 AGG= -9*09	52.77 52 +6.84 *6	CDU AGC SHAFT •87 -•03 •82 AGC TRUN •04 •01	SDS SHAFT 10*99 SDS TRUN 56*35	R ERROR V ERROR		05 ALT L05 CR -2.34 89.77 0201
STATE VECT RX SDS CM 4586220.6 AGC CM 4586186.0 DELTA 34.6	RY 4168518.6 -237164 4168530.3 -237169 +11.7 5		-5598 • 74 -5598 • 74 -5598 • 74	4663.52 4663.50		RSS - TIME 7755-69 1878-41 7755-68
SDS LM 4582461.3 AGC LM 4582430.4 DELTA 30.9	4195865.6 ~238688 4195916.6 +238686 -51.0 ~2		-5612·25 -5612·23			7738.96 1878.41 7738.94 .02
POSITION LAT -21.07 SDS LM -21.14	L9NG AL =4.60 26043 -4.39 28053	8.3 279091.9	PERIGEE 254605.9 277481.9	AZIMUTH 67		RANGE RANGE RATE 31533.3 *36.51
FLAGWD 0 00310 FLAGWD 1 FLAGWD 8 50000 FLAGWD 9 RCSFLAGS 00011 VHFCNT CADR+2 73045 FAILNEG HOLDFLAG 77776 DAPDATR1 CHAN 13 00101 CHAN 14	00200 00001 TRKMKCNT 00000 00000 FAILRG+1 00000 11103 DAPDATR2 11111	RCSFLAGS 00011 RS FAILRG+2 00000 P: REDOCTR 00000 IN	688Q 66102 R PA X 77753 P MODE 30 36001 I	RSBBQ+1 03304 PIPA Y 77767 (MODE 33 26000	CADRELSH 56010 PIPA Z 77230 CHAN 11 01000	6 OPTMODES 00120
CDUX	CDUY 52.89917 AD81/BBY -:1987517E-01 THETAD Y 52.30591 RTARRY 1421296* MARKCDUS 1:274414 TPI 2018630* DELVSLVY -:8106232E-02 AD81/ -:2005287E-01 AK2 -:197753 CENTANG 61.50000 DELV3 S 22.88678 ERRBRZ 22.88578 ERRBRZ 2087402 THETAD Y 52.61353 VPRED 7701.699 Z CG 5077438 IZZ 4710.12 WY DEG/S -*2098235E-01	THETAD Z = 6.866/ RTARG Z = 27264/ MARKCDUZ = 2-131: ECSTEER 1 *000/ DELVSLVZ = 3547/ AD01/08P = *4404/ THETAD X = 8.668/ DELTAR 1312*/ LEMMASS *0000/ WB8D/DCR *4196/ THETAD Z = 6.855/ GAMMAEI = 114*,44 JET FUEL 10*60/ IXY WZ DEG/S = *6994	309 AK1 155 TIG 100 VHFTIM 148 MARKCE 144 DELVTR 169E-01 DELVSL 158E-01 AD0T/C 113 THETAG 100 DELV3 100 CSMMAS 181E-02 WB0D/C 1669 RTHET/ 175 SLC MK 1559 SLOSH 1XZ 114E-02 CONFIC	DUT 3.532104 0000000 P.VS .36714615 BY -1830608E- 07 52.27295 X 17.06915 85 26520.00 BY -3122930E- A 32.56187 AR -7.886368 246.1853 1.000000	AK2 DELLT4 MARKD8WN MARKCDUX TPASS4 01 RANGE 01 AK THETAD Z DELV3 Y ERR8RX	3550.230 12236.00 .4174805
AYSCM/S21235881E-02 AXSMM/S2 -4454670E-02	AZSCM/S2 .4791953E-02 AYSMM/S25704594E+03		000 YGYRÐE 105E=02 ARSMM/		ZGYR88UT	*0000000

pROGRAM	35	VEDR	16	NO	UN: 46		D 4 ,	01 00	0.2	-05 h1	D3 - 0	0001	CLACU-1	- DSPT	AD : 4.4	20000		
PICOLINA	0.0	AFIA	10		QN 40		NI T	01 00	NE	-03 -1	1/3 0	0001	LEWOW I	D251	AD +11 (30000		
	SDS (REFERENCE	_ M	ATRIV				AGE	REFER	ENCE MATE	RIV			9/C A	TTITUDE	MATRI	v	
-:41222		.791590		-,451	06113		* 000	00000-		0000000	*0000	0000		* 44264674		6788	-,32643127	,
• 00042	2095	494916	686	= 868				00000		0000000	.0000			.20890808	4500		**86821342	
91108		358381	706		68291			00000		0000000	*0000			*87202144	+3161		~ : 37369561	
				,				,		000000	0000							٠.
REFSMMAT	F ER	SIMBAL AL	VGLE	S SD	s CDU	AGC	CDU	AGC	SHAF	T SDS	SHAFT			Les DR	Las	ALT	LOS CR	
Y= +	000	AIG= 50	.86		50+86	50	• 95		**03	10	0.99	R ER	ROR	4 = 85		*3 * 32	89 • 26	5
Z=	000-	AMG= -7	044		=7.44	=7	+29	AG	C TRU	N SDS	S TRUN	V.ER	RER	- · 01		-:02	01	
X= •	000	A0G= -9	• 75		+9 • 75	+9	* 68		*01	91	7.72							
					_													
STATE VE	CT -	RX		R	ΥΥ	RZ		RS			VX-	VY	f	VZ		RSS	TIME	
SDS CM		4239310				-252505			438 . 2		60 • 18	4311	. • 05	+2455 · 26	779	54.82	1938 • 41	i
AGC CM		423927				-252511		6636	443.6		60 * 18	4311	. • 03	-2455 • 25	775	54 . 81		
DELTA		. 3	4 . 8 .		=10=4	5	4.3		-5.4		•00		• 02		/// /	- • 01		
			0 ==															
SDS LM		423484				-253916			964.6		70 = 14	4278		-2436.67		38.73	1938 • 41	1
AGC LM		423481				-253913		6655	969.4		70 • 12	4278		-2436.68	773	38 . 71		
DELTA		2	9.9		-50 - 1	- 6	5 * 7		=4+8		02		• 02	*01		• 05		
POSITION	VI.	1	АТ		LONG	AL	T	100	GEE	PERI	orr	AZIN	OITL	FLEVATION	0	ANGE	RANGE RATE	
SDS CM		-22			* + 81	26138			217.7				• 77	41.56		379 × n	-35 · 28	
SDS LM		*22			61	28092			230.0				- / /	41420	2-	3/2.0	-30*50	,
		Au. 3au	. 55		.01	20022	247	270	20000	2770	, , , ,							
FLAGWD C	0031	o FLAGW	D 1	01124	FLAGWD 2	00404	FLAG	WD 3 1	0014	FLAGWD 4	10000	FLAGWD	5 43201	FLAGWD 6	20000	FLAGWD	7 02100	
FLAGWD 8	8 5000	O FLAGW	D 9							٠.					-0000		0-100	
RCSFLAGS	0001	1 VHFCN	T.	00001	TRKMKCNT	.00000	RCSF	LAGS O	0011	RSBBQ	66102	RSBBQ+1	03304	CADRELSH	56016	CADR+1	64051	
CADR+2	7304	5 FAILR	EG	00000	FAILRG+1	00000	FAIL	RG+2 0	0000	PIPA X	77756	PIPA Y	. 77766	PIPA Z	77362	OPTMOD	FS 00120	
HOLDFLAG					DAPDATRE			CTR 0		IMBDE 30		IMBDE 3			01042	CHAN 1	2 00040	
CHAN 13	0010	1 CHAN	14_	00000	CHAN. 30	37373	CHAN	.313	7777	CHAN 32	7.7777	CHAN 33	67765	FLAG 10	20000	FLAG 1	1 00000	
CDUX		78955		CDUY	50.97			UZ		82812	CDUT		3.76440	ADOT		5592406		
THETAD >		4.0955E=0			Y 3614					46582	AK1		5383301	AK2		3186035		
RTARG X		3842.		THETAD				ETAD Z			TIG		277.350	DELL		272 - 880		
MARKCOUS				RTARG Y	S =1.274			ARG Z RKCDUZ			VHFT		532104			04463.1		
RM		95.56		TPI	20186			STEFR		000244	DELV		0000000	TPAS		5.00000 550.230		
DELVSLV					Y = :5054			LVSLVZ					245229	RANG		2236.00		
RRATE		93809		ADOT/		842E-02				33372E-01		/0BY - = 3				1757812		
AK1		73437		AK2	4064			ETAD X					32837		AD Z =7			
ELEV		07942		CENTANG				LTAR		64.00	DELV		797104	DELV		351093		
DELV3 7	=1.3	32188		DELV3 S				MMASS		000000	CSMM		5520:00	ERRO		1867676		
FRRORY	•53	83301		ERRORZ	+4064	941				56331E-02		70CP - + 2			78CY			
THETAD >				THETAD				ETAD Z			RTHE		2 • 56187			7 + 92083		
LNG (SPL)				VPRED	7701.			MMAEI		4775		MASS 1		X. CG		.466005		
Y CG		71489		Z CG	*5077	438	JE	T FUEL		75769	SLOS	SH AR -7	886368	IXX		1119.44		
IYY		00.74		IZZ	84710		Ix	Y	203	86 • 133	IXZ	2	46 - 1853	IYZ	1	424 9 454		
		94114F-0			S2098					98235E-01			.000000	AXSC	M/S2 - 1	9327403	E=03	
		35881E-0		AZSCM/S		449E-02		YRAGUT		000000			0000000		eeut .	0000000		
AXSMM/S	2 .42	47561E=0	2	AYSMM/S	25813	599E-04	A Z	SMM/S2	. 46	72680E = 02	ARSh	1M/S2 .	6314990E	-02				

PROGRAM 35 _ VERB	NOUN	R1 R2	R3 FLASH (DSPTAB +11 00000)
SDS REFERENCE -:41282304 .7915908 .000420954949168 -:911082863583870	145106113 686894023	AGC REFERENCE -00000000	0 - *0000000 -	S/C ATTITUDE MA .+41418266	3286 ₀ 374 86823773
REFSMMAT ER GIMHAL ANG Y= *000 AIG= 49*0 Z= *000 AMG= =7*7 X* *000 A0G= *10*5	5 49 · 05 49 2 -7 · 72 -7	•13 -•03 •69 AGC TRUN	SDS SHAFT 10•99 R ERROR SDS TRUN V ERROR 69•81	LOS DR LOS ALT 4.37 -4.21 0100	
STATE VECT RX SDS CM 3877876 AGC CM 3877841 DELTA 340	8 4681492.7 -266384	1 • 4 6637017 • 3	-6286.94 3943.95 -6286.94 3943.93 -6286.94 3943.93	VZ RSS -2245.76 7753.9 -2245.74 7753.9 -02 0	4
SDS LM 3872923. AGC LM 3872894. DELTA 28.	6 47.05044.7267679		-6293.70 3912.92 -6293.67 3912.90 -02 02	-2227.89 7738.5 -2227.90 7738.5 .01 .0	2
POSITION LAT SDS CM -23.8 SDS LM -23.8	0 3.00 26230	9.4 277395.2 2	ERIGEE AZIMUTH 54965.488 77409.5	ELEVATION RANGE 43.80 27335.	
FLAGWD 8 50000 FLAGWD RCSFLAGS 00001 VHFCNT CADR+2 73045 FAILREG	9 00200 00001 TRKMKCNT 00000 00000 FAILRG+1 00000 1 11103 DAPDATR2 11111		66102 RSBBG+1 _ 0330	5 PIPA Z 77436 8PT O CHAN 11 01002 CHA	R+1 76531 MBDES 00120 N 12 00040
CDUX	CDUY	THETAD Z =8.096924 RTARG Z =1228472 MARKCDUZ =2.131348 ECSTEER 1.000244 DELVSLVZ =3.109932 AD8T/88P = .22201998 THETAD X =10.15137 DELTAR 88264.00 LEMMASS .0000000 WB8DY8CR .42211276 THETAD Z =8.096924 GAMMAEI = .114.4775 JET FUEL 10.90869 IXY 2036.133 WZ DEG/S =.34970576	THETAD Y 48.61450 DELV3 X 1-797104 CSMMASS 26520.00 WB0D/NCP2608281 RTHETA 32-56187 S/C MASS 1788.571 SL08H AR -7.886368 IXZ	AK25712 DELLT4 11614 MARKDBWN 45-00 TPASS4 3550 KANGE 12236 AK -3735 THETAD Z -8-096 DELV3 Y 2-351 E-01 WBBD/BCY9848 LAT(SPL) 27-92 X CG X 3111 IYZ 1424 AXSCM/S29327	690 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1
AXSMM/S21422429E-02	AYSMM/S2 = 4287529E = 03				

PROGRAM 41	VERB	NOUN -	-R1-	R2	- R3	- FLASH 0	DSPTAB +	11 00000	
SDS 41222304 -00042095 91108286	**************************************			EFERENCE MATE -79159081 -49491686 -35838706	RIX 45106113 86894023 -20368291	• :	38452744 • 22891712 ••	UDE MATRI) 86322689 43241882 26048470	-+32707357 87213016 36388469
Y= *000	GIMBAL ANGLE AIG= 47.21 AMG= +8.21 AGG= -10.88	47.21 =8.21		03 1: TRUN SD:		ERROR ERROR	LOS DR 3.89 01	L8S ALT -5.24 02	L0S CR 86+97 03
STATE VECT SDS CM AGC CM DELTA	8X 3491453*9 3491419*4 -34*5	RY 4906440+8 -2791 4906448•7 -2791 -7•9	923.3 66376	16•7 =65: 26•4 =65:	88+52 3 88+51 3		VZ =2021+83 =2021+81 =+02	RSS - 7753 • 07 7753 • 05 - • 02	TIME 2057•41
SDS LM AGC LM DELTA	3486185.7 3486158.4 27.2	4928133.8 -2803 4928181.6 -2803 -47.8	832 • 8 66559		92.30 3		-2004+83 -2004+84 -01	7738•39 7738•36 •03	2057•41
POSITION SDS CM SDS LM	=25 • 06	6.95 263	ALT AP8G 248.4 2766 588.9 2779	10.5 2551	15.7	ZIMUTH -1.02	ELEVATION 46.26	RANGE 25338 • 2	RANGE RATE- +32.57
FLAGWD 0 003 FLAGWD 8 5000 RCSFLAGS 0000 FAILRG+1 0000 HOLDFLAG 777 CHAN 13. 001	DO FLAGWD 9 D1 RCSFLAGS D0 FAILRG+2 DAPDATR1	00200 00001 RSBBQ6610 00000 PIPA X7776 11103 DAPDATR2 1111	3 PIPA Y .77	304 CADRFLSH 765 PIPAZ 000 IMBDE 30	56016 CADR 77204 FLAG 36001 IMBD	R+1 76531 i 10 20000 DE 33 26000	CADR+2 102	64 FAILREG	G 00000 ES 00120
AD8 J. BBP5. THETAD X - 10 RTARG X - 61 DELV X - 0 PCMD - 0 AD817 BBY - 1 THETAD Y 46 TEVENT 23 ERR8RX - 23 WB8D J. BCY VGTIG Y - 75 Z CG - 55	-59082 63634 • 000000 000000 000000 731366E-C1 •86768 72.820 076172 000000 2.9216 077438 710.12 447940E-C1 109449E-C2	CDUY	THETAD Z RTARG Z DELV Z CSTEER AK1 ELEV YCMD ERRORZ THETAD Y S/C MASS SUSH AN IXZ CONFIG	*1235646* 1*989000 *0000000 *3515625 *41.07942 *0000000 *3076172 46.86768	AKI TIG TGB FACTOFF ADOT/ AK2 CENTANG LEMMASS WBOD/OCR THETAD Z X CG IXX IYZ AXSCM/S2 ZGYROBUT	-19.76440 38.45215 2388.540 16972.80 -2.918.175 770(1293E 318.6035 61.5000 .000000 .000000 -8.38.2568 8.466005 31119.44 1424.454 -9327403E .0000000	THETAD > DELTAR CSMMASS W80D/0CF VGTIG. X Y CG IYY WX. DEG/S 03 AYSCM/S2	2 • 230150 - • 46382108 (-10,59082 117620 • 0	E-01 E-02

PROGRAM 41 VERB 16	NOUN 45	R1 +00127 R2 =0	0000 R3 +0000;	FLASH 0	DSPTAB +	11 00000	
SDS REFERENCE M	ATDI.	tos percenti	MATOTA		0.0	une Marot.	
- · 41222304		AGC REFERENCE **41222304 *7915				UDE MATRIX	
	**43100113						41734052
·00C4209549491686	86894023	•00042095 +4949					81891775
9110828635838706	•20368291	911082853583	8706 • 2036829	1 (+ 2	86707449 *	30492687	-:39395547
REFSMMAT ER GIMBAL ANGLE			SDS SHAFT			LOS ALT	LOS CR
Y= +000 AIG= 52+02	52+02 52		10.99		3 . 41	-6 + 22	85 • 12 .
Z= = 000 AMG= +1.36		36 AGC TRUN	SDS TRUN	V ERROR	~ • 01	02	03
X= .000 ABG= -11.02	-11-02 -10	• 95	68 • 19				
STATE VECT RX	RY RZ	RSS	vX	vY	VZ.	RSS	TIME
SDS CM 3074179.3	5113598.3 -290978		~6866 • 06		-1780•n9		
						7752 • 16	2119 • 41
			-6866 • 05		-1780+06	7752 • 14	
DELTA 34.0	=6 • 8 5	1.0 +11.8	01	• 02	02	- • 02	
SDS LM 3068760.6	5133509 • 1 = 292074	4 • 6 6655896 • 4	-6867.17	3100 • 14	-1764 • 08	7738 • 27	2119.41
AGC LM 3068735.0	5133555.6 =292072	0.4 6655909.8	-6867 • 14	3100 - 11	1764 - 10	7738.24	
DELTA 25.6	-46.4 -2	4 • 1 -13 • 4	-•03	• 02	+01	• 03	
		-				. 0 -	
POSITION LAT .	LONG AL		PERIGEE.	AZIMUTH	ELEVATION	RANGE	RANGE RATE
SDS CM +26.15	11.11 26420		255249.2	-1 - 19	49.00	23366.5	-31 .02
SDS LM +26 • 18	11.26 28186	3.7 278136.6	275897 • 7				
FLACIO A POZIA FLACIO A	-0000 EL 16110 C -0574	EL 1000 2 1000 EL	ACMO A CODOS EL	10kD E 42002	El ACID C COO	an El Acub	7 00400
FLAGWD 0 00310 FLAGWD 1 FLAGWD 8 50000 FLAGWD 9		FLAGWD 3 10004 FL	AGNU 4 00200 PL	AGNU 5 43203	FLAGND 6 200	00 FLAGND	/ 02100
RCSFLAGS 00011 RCSFLAGS		RSBBQ+1 03304 CA	DDFI CI. FCGAC CA	DR+1 76531	CADR+2 560	16 FAILREG	00000
FAILRG+1 00000 FAILRG+2		PIPA Y 77764 -PI		AG 10 00000	FLAG 11 000		S 00120
HOLDFLAG 77776 DAPDATR1				BDE 33 26000	CHAN 11 010		
					CHAN 11 010	ZU CHAN IZ	00040
CHAN 13 40101 CHAN 14	00000 CHAN 30 .3/3/3.	CHAN 31 37777 CH	AN 32- //// CH	AN 33. 07/65			
CDUX -10+89844	CDUy 52+09717	CDUZ =1:3293	46 CDUT	-19.76440	ADOT/	3589802E	-01
AD8T/8BP1341105E-01	AD8T/88Y 2044514E-01	AK •23071	29 AK1	5273437	AK2	- • 1318359	
THETAD X -10:67871	THETAD Y 51 .54785	THETAD Z -1 - 1755	37 TIG	2388 • 540	DELLT4	1161 • 690	
RTARG X +6163634+	RTARG Y 2176504+	RTARG Z -123564		-177061 • 1	PIPTIME1	2358 • 580	
DELV X •0000000	DELV Y .000000	. DELV Z 1.9890			. YACTOFF.		
PCMD *0000000	YCMD •0000000	CSTEER .00000		3694408E-		1062155F	=01
AD8T/8BY 1939908E-01	AK •2636719	AK156030		1098633E-		-10.67871	. 01
THETAD Y 51.54785	THETAD 7 -1.175537	ELEV =41.079			DELTAR	117620+0	
TEVENT 2372.820	PCMD +0000000	YCMD .00000			CSMMASS	26520.00	
FRRORX = +2856445	ERRORY •5603027	ERRORZ +00000			WB8D/8CP		
WB8D/8CY .0000000	THETAD X -10.67871	THETAD Y 51.547		Z -1 · 175537	VGTIG X		
VGTIG Y 3.038359	VGTIG Z -1.637220	S/C MASS 1788.5		8.466005	Y CG	.3071489	
Z CG •5077438	JET FUE: 14.71216	SI OSH AR =7 : 8863		31119+44	IYY	79900+74	
1ZZ 84710 · 12	IXY 2036 • 133	IXZ 246 • 18		1424.454		-,4196469E	-01
WY DEG/S +0000000	WZ DEG/S1398823E-01			2 9327403E+		14224298	
AZSCM/S2 +4605405E=02	XGYR88UT +0000000	YGYROBUT .00000				3204747F	
AYSMM/S2 4941559F=03	AZSMM/S2 .3691636E=02		29E=02	, -0000000	ANDINITY DE	52,047476	
WINING OF MAINTANDSERGO	していいい ので まつつっさのかは下当のは	UNMINITE STRAN					

PROGRAM 41 VERB 16	NOUN 45	R1 - 06900 R2 -	03-31 R3-+35881	- FLASH 0	DSPTAB +	11 00000	
SDS REFERENCE 1.00042095494916869110828635838706	45106113 86894023	.00042095494	ECE MATRIX 59081 -**45106113 91686 -*86894023 338706 *20368291		46607971 17872310 =	55064511	- • 42271757 - • 81538177 - • 39555311
REFSMMAT ER GIMBAL ANGLE Y= *000 AIG= 52*13	ES SDS CDU AGC C 52•13 52•		SDS SHAFT	R ERROR		LOS ALT	LOS CR
Z=000 AMG=98				V-ERROR	2.94	=7 • 12	82.96
X= +000 ABG= -11+11	-11.11 -11.		56.66	V-ERROR	01	**02	
STATE VECT RX SDS CM 2662114.5	5285883•8 -3007804	- RSS		- VY	VZ	RSS	TIME
AGC CM 2662081#3	5285883+8 +3007804 5285889+5 +3007854				-1541+43	7751 * 30	2178 * 41
DELTA			=7 ₀ 96+69		-1541 • 41	7751 • 28	
DELTA		*13*7	4.01	• 02	**•02	• 02	
SDS LM 2656697.8	5304199.7 -3017853	•5 6655825 • 8	-7095.59	2683,72	=1526 · 45	7738 • 20	2178 • 41
AGC LM 2656674.0		•3 6655841 •7	=7 ₀ 95 • 55		-1526.47	7738 • 17	
DELTA 23.8	-45:0 =23	•2 •15•8	-*03	• 03	*02	± O4	
p8SITI8N LAT	Leng ALT	APOGEE	PERIGEE.	AZIMUTH	FLEVATION	RANGE	RANGE RATE
SDS CM -27.09	15.15 265088		255358 • 1	=1.39	51 • 81	21582.3	*29:46
SDS LM -27-12	15.27 282072		275262.8	*	01.01	22002.0	
FLAGWD 0 00310 FLAGWD 1	02000 FLAGWD 2 00574	FLAGWD 3 10004 F	TI AGWD 4 ODROG FLA	GWD 5 43203	FLAGWD 6 200	DOD FLACMD	7 03100
FLAGND 8 50000 FLAGND 9	00204	1 2000 1		. 40203	LEVOLD O SOL	100 / ENGND	, 0c100
RCSFLAGS 00011 RCSFLAGS	00011 RSBBQ 66102	kSBBQ+1 03304 (CADRELSH 56016 CAD	R+1 76531	CADR+2 560	16 FAILREG	-00000
		PIPA Y 77763 F	PIPAZ 77235 FLA	G 10 00000	FLAG 11 000		S 00120
		REDUCTR 00000 1	IMBDE 30 36001 IMB	DE 33 26000	CHAN 11 010	22 CHAN 12	00040
CHAN 13. 00101 CHAN 14	00000 CHAN 30 37373	CHAN 31 37777 (CHAN 32 77777 CHA	N 33 67765			
.CDUx -11-10718	CDUY 52.19604	CDU7977	7832 CDUT	-19.76440	ADOT/	+1813509E	=01
AD0T/0BP1684428E-01	AD0T/0BY - : 1884252E-02	AK .4394	+531 AK1	5603027	AK2	- 3845215	
THETAD X -10.67871	THETAD Y 51 . 54785	THETAD Z -1 - 175		2388.540	DELLT4	1161.690	
RTARG X -6163634 *	RTARG Y 2176504.	RTARG Z =12356		-177061 *1	PIPTIME:		
DELV X .0000000	DELY Y .0000000	DELV Z 1 . 985		-2.918175	YACTOFE		
PCMD	YCMD •0000000	CSTEER .0000		*1674034E=		- 1248569E	-01
THETAD Y 51.54785	AK .4174805 THETAD Z ~1.175537	AK1 = .5491		3845215		x -10.67871	
TEVENT 2372-820	PCMD +0000000	YCMD +41.07			DELTAR.		
ERRORX = • 4064941	ERRORY •5603027	ERRORZ •3845		0000000 9000000	CSMMASS WB8D/8C		
WB8D/6CY .000000	THETAD X -10.67871	THETAD Y 51.5		7 =1 • 175537	VGTIG X		
VGT1G Y 3.038359	VGTIG Z -1.637220	S/C MASS 1788		8.466005	Y CG	.3071489	
Z CG •5077438	JET FUE: 14.88818	SI 8SH AR #7 *88		31119+44	IYY	79900 • 74	
IZZ 84710 • 12	IXY 2036 • 133	IXZ 246 .:		1424.454		S •1049118E	=01
WY DEG/S 3497057E-02	WZ DEG/S .CCCCOOC	CONFIG 1.000				2 - · 1608977F	
AZSCM/S2 .4512131E=02	XGYRBBUT .OCOCOOO .	YGYRBBUT .0000				3742505E	
AYSMM/S27085324F-Q3	AZSMM/S2 .2921334E 02		0265E=02			0-2	

PREGRAM 41	VERB 16	NOUN 45	D4 -	-01 00 R2 =0	20 20 20 25	881 FLASH O	DSPTAE	11.00000	
Lite dirties 14-1	AFVD 10	MOUN 40	LT 4	-01 00 KE =() C 3 C K3 +33	OOL FLASH U	DSPIAE	+11 00000	
SDS				AGC REFERENC	E MATRIX		S/C ATT	TITUDE MATRI	X
41222304	.79159081	45106113	* • 412	22304 .7915		113	4659431n		42263532-
.00042095		86894023	* 000	42095 - 4949	91686 - 86894		17971683	55c84205	81503010
91108286	35838706	-20368291	911	08285 -+3583	38706 +20368	1291 / -	86637068	*30380297	- • 39636469
						1			
REFSMMAT ER	GIMBAL ANGLE		AGC CDU	AGC SHAFT	SDS SHAFT		LOS DR	LOS ALT	LOS CR
Y= +00Q		. 52+12	52 • 19	-+03	10.99	R ERROR	2 = 45	-7.99	80 • 37
_ Z= - • 000		**99	- * 98	AGC TRUN	SDS TRUN-	V ERROR	- + 01	- * 02	= = 05
X= •000	A0G= -11:17	-11-17	-11.13	• 01	87 * 04				
STATE VECT	RX			RSS	- VX	- VY -	VZ	- RSS	TIME
SDS CM	2230136+0	5435389 * 6	-3092821 • 5	6639466+2	-7296 • 68	2271 • 64	-1291:32	7750.45	2238 • 41
AGC CM	2230103.8	5435394*3	-3092869.6	6639481.7	-7296 • 66	2271.62	-1291.29	7750 • 42	
DELTA	32.3	*4 • 7	48 • 1	-15.4	~•02	• • • • • • • • • • • • • • • • • • • •	03	• 03	
SDS LM	2224846.1	5452191.2	-3102004 • 1	6655731+3	-7293.63	2247+33		7700 .0	
AGC LM	2224824.4	5452234.7			=7293·59 =7293·59	2247 • 33	-1277 • 43	7738 • 18	2238,41
DELTA	21.7	*43.5	-3101395.1	=18:1	= 1233.03		-1277 • 45	7738 • 14	
D C. C. 1 /	C7 = 1	*73*5	-42 0	-10 = 1	- + 0 7	• 03	* 02	» O4	
POSITION	LAT	LONG	ALT	APRGEE	PERIGEE	-AZIMUTH	ELEVATION	RANGE	RANGE RATE
SDS CM	-27.92	19+32	265957 • 4	274665.7	255455.5	-1.64	54.92	19864+5	*27.79
SDS LM	-27.94	19.43	282227+3	278363 . 9	274690+6	*	31.72	10001.0	-21012
FLAGWD 0 00			2 00574 FLAG	GWD 3 10004 FI	AGWD 4 00200	FLAGWD 5 43203	FLAGWD 6 2	20000 FLAGWD	7 02100
FLAGWD 8 50									
RCSFLAGS 00					ADRFLSH 56016			56016 FAILRE	
FAILRG+1 00			77775 PIP			FLAG 10 00000			ES 00120
HOLDFLAG 77						IMBDE 33 56000		01022 CHAN 1	2 00040
CHAN 13 00	101 CHAN 14	000000 CHAN 30	3/3/3. CHA	4 31 32777 C	HAN 32 77777.	CHAN .33 67765			
CDUX -1	1.10718	CDUY 52.2	0703 Cr	DU7 = +9667	969 CDUT	-19.76440	AD8T/	4710630	- 00
	1330376E=01	AD8T/0BY566				= • 5493164	AK2		
THETAD X -1		THETAD Y 51.5		HETAD Z =1 • 175		2388.540	DELLT		
RTARG X -6		RTARG Y 2176		TARG Z =12356		-177061 • 1		F1 2358 580	
	0000000			ELV Z 1.989		FF -2 + 918175	YACTOR		
	0000000			STEER +0000				BBP1016558	
	5666167E=02			<15493		4833984		X -10.67871	
THETAD Y 5	1 • 5 4 7 8 5	THETAD Z -1-17		EV =41.07			DELTAR		
TEVENT 2	372 - 820	PCMD +000	0000 Y	0000 dMC	000 LEMMA	ASS +0000000	CSMMAS		
ERRORX -+	4504395	ERRORY .516	3574 EI	RRORZ .4724			WB0D/6		
WBOD/OCY .		THETAD X -10.6		HETAD Y 51 . 54		AD Z -1 -175537	VGTIG	X 1 . 7.73262	
	.038359	VGTIG Z -1,63		/C MASS 1788.		8.466005	Y CG	.3071489	
	5077438	JET FUEL 15.0		LUSH AR =7 . 886		31119 • 44	IYY	79900+74	
	4710 • 12			XZ 246 • 1		1424,454		G/S - 1748529	
	3497057E+02	WZ DEG/S .OCO		9NFIG 1.000		M/S2 - +9327403E		/S2 - · 1422429	
	4605405E=02	XGYR88UT .OOC		GYR88UT .COOO		00000000 TUBE	AXSMM,	/S2 •3212014	E-05
AYSMM/SZ	48488895_03	47SMM/S2 .369	1636E-02 A	DSMM/S2 .4917	547F-02	1			

PROGRAM 41 VERE	06 N9UN 85	R1 +00127 R2 -	00001 R3 +00001	FLASH 0 DS	PTAB +11 00000	
SDS REFERENC 41222304 .79155 -0004209549491 9110828635838	686 86894023	AGC REFERENT .7915 .000420954945 91108285358	59081 45106113 91686 86894023	• 4660 ⁷⁹ 0 • 1784739	555043912	X **42260504 **81557536 **39527392
REFSMMAT ER GIMBAL A Y= *000 AIG= 52 Z= **000 AMG= -11	1.13 52.13 5 1.9999	CDU AGC SHAFT 2.21 =.02 =.99 AGC TRUN 1.05 .01		R ERROR 1.9 V ERROR0	0 -8.79	LOS CR 77.42 05
STATE VECT RX SDS CM 178722 AGC CM 178713 DELTA	9•3 5558261•0 =31626 8•2 5558264•9 =31626	84.0 6640102.2	=7460+84 =7460+81	VZ 1822.43 -1034.9 1822.42 -1034.9	5 7749 • 61 2 7749 • 58	2298 • 41
SDS LM 178217 AGC LM 178215 DELTA 1	2 4 5573703 3 -31709			1800 • 03	1 7738 • 16	2298+41
	23.55 2667 3.61 23.65 2823	87 · 8 274179 · 8 20 · 5 278469 · 5	255546•3 274196•3	AZIMUTH ELEVATI -1.96 58.2	8 18248 • 8	RANGE RATE
FLAGWD 8 50000 FLAGW RCSFLAGS 00001 RCSFL	RC 9 00204 AGS 00001 RSBEQ 66102 RG+2 00000 PIPA X 00001 RTR1 11103 DAPDATR2 11111	PIPA Y 77762. P	ADRELSH 56016 CADI IPAZ 76660 FLAM MBDE 30 36001 IMB	R+1. 76531 CADR+2 G 10 00000 FLAG 1 DE 33 26000 CHAN 1	56016 FAILRE	G 00000 ES 00120
CDUX -11.05225 ADBT/BBP -1703203E-(THETAD X -10.67871 RTARG X -6163634 DELV X -0000000 ADBT/BBY -64884241E-(THETAD Y 51.54745 TEVENT 2372-820 ERRBRX -3735352 WBBD/BCY -0000000 VGTIG Y 3.038359 2 CG 5077438 TLZ 84710-12 WY DEG/S -0000000 AZSCM/S2 -46C5405E- AYSMW/S2 -7085324E-	THETAD Y 51.54785 RTARG Y 2176504* DELV Y 0000000 OC AK .3735352 THETAD Z -1.475537 PCMD 0000000 ERRERY 5273437 THETAD X -10.67871 VGTIG Z -1.637220 JET FUEL 15.19202 IXY 2036:133 WZ DEG/S -3497057E=C 22 XGYKBBUT 0000000	THETAD Z -1:175 RTARG Z -1:2356 DEL Z 1:985 CSTEER .0000 AK15712 ELEV -41:07 YCMD .0000 ERRORZ .4724 THETAD Y 51:54 S/C MASS 1788. S,684 AR 77:886 IXZ 246:1 CONFIG 1:000	352 AK1 537 TIG 46. TG6 000 PACTIFF 000 AD0T/ 891 AK2 9942 CENTANG 000 LEMMASS 121 W80D/0CR 785 THETAD Z 571 X CG 368 IXX 853 IYZ 0000 AXSCM/S2 0000 ZGYR08UT	52/3437 Ak 2388-540 DE -177061-1 PI -2-918175 YA -5216897E-02 AL -3955078 TH -61-50000 DE -0000000 CS -0000000 WE -1-175537 YG 8-466005 31119-44 IN 1424-454 WS -8861033E-03 AN	08T/ .7657707 24833984 LLT4 1161.690 PTIME1 2358.585 CTORFF 2.230150 08T/08PP -1162738 ETAD X -10.67871 LTAR 117620.6 MMASS 26520.00 CG 3071487 Y 79900.74 CDEG/S .3907187 CSCM/S2 -1160897; CSMM/S2 -1160897;	E-01

PROGRAM 41	. VERB	NOUN	R1	KS	R3	FLASH 0	DSPTAB	+11 00000	
\$05 **41222304 *00042095 **91108286	**REFERENCE ***79159081 *** ***49491686 *** ***35838706	*ATRIX -:451c6113 -:86894023 :20368291	- · 4122 • 0004 - · 9110	2095 4949	9081 **4510 1686 **8689	4023	46623492	TTUDE MATRI) •77745223 ••55047917 •30420184	(= ,42212749 = .81525683 - :39643979
REFSMMAT ER Y = *000 Z = *000 X = *000	GIMBAL ANGLE AIG= 52:14 AMG= -1:02 ABG= -11:16		AGC CDU 52*21. ~1*01- -11*16	AGC SHAFT 03 AGC TRUN .01	SDS SHAFT 10:99 SDS TRUN 105:64	R ERROR V ERROR	Les DR 1.28 01	LOS ALT -9.50 02	LOS CR 74•17 -*06
STATE VECT SDS CM AGC CM DELTA	RX 1343155•3 1343125•4 29•9	RY 5652537 • 4 5652540 • 7 +3 • 4	RZ -3216139 • 4 -3216184 • 0 44 • 6	RSS 6640692.5 6640711.0	VX ~7586.57 ~7586.54 ~03	VY 1372•14 1372•13	-777•97 -777•94 -03	RSS 7748•81 7748•78 •03	TIME 2357•41
SDS LM AGC LM DELTA	1338410 • 6 1338393 • 2 17 • 4	5666672 • 0 5666712 • 6 -40 • 6	-3223801.9 -3223782.9 -19.0	6655479.9 .6655501.7 -21.8	=7580+67 =7580+63 =+04	1351 • 64 1351 • 61 • 02	-766.32 -766.35 .03	7738 • 27 7738 • 23 • 04	2357 • 41
POSITION SDS CM SDS LM	LAT =29•13 =29•13		ALT 267560 • 2 282349 • 2	AP8GEE 273779+7 278575+5	PERIGEE 255638•3 273787•2	AZIMUTH -2.38	ELEVATION 61.86	RANGE 16763 • 5	RANGE RATE -24.29
FLAGWD 0 003 FLAGWD 8 500 RCSFLAGS 000 FAILRG+1 000 HBLDFLAG 777 CHAN 13 001	000 FLAGWD 9 010 RCSFLAGS 000 FAILRG+2 776 DAPDATR1	00204 00010 RSBBQ 00000 PIPA X 11103 DAPDATRI	00004 PIPA 2 11111 REDOC	0+1 03304 CA Y 77761 PI CTR 00000 IM	DRFLSH 56016 PAZ 77211 10DE 30 36001	FLAGWD 5 43203 CADR+1 76531 FLAG 10 00000 IMODE 33 26000 CHAN 33 67765	CADR+2 5 FLAG 11 0	C145 FAILREC	7 02100 3 00000 5 00120 2 00040
ADBT/RBP THETAD X THETAD X THETAD X DELY X PCD ADBT/RBY TEVENT STEVENT	0.67871 1.63634. 1.000000 1.000000 1.553927E-C3 1.54785 1.724820 1.724121 1.000000 1.038359 1.077438 1.710-12 1.74748	XGYROOUT .000	8449E-02 AK 4785 THE 6604 RTA 0000 DEL 0000 CST 3984 AKI 5537 ELE 0000 YC 3301 ERR 7220 S/C 2544 SL 133 IX2 4114E-02 GM		148 AK1 137 TIG 164 TIG 160 PACT 100 AO9T 191 AK2 142 CENT 1400 LEMM 188 WBBD 185 THET 171 X CG 168 IXX 153 IXX 153 IXX	5603027 2388-540 -177061-1 0FF -2-918175 / -2072342E- 3515625 ANG 61-50000 ASS -0000000 /8CR -0000000 AD Z -1-175537	THETAD DELTAR CSMMAS WB8D/8 VGTIG Y CG -IYY WX DEG	E1 2358.580 F 2.2305050 EN25507811 1.17620.00 CP .0000000 X 1.773262 3071489 79900.74 10491181 S2 -12358811	E-01 E-01 E-02

TAPE WEDB PUN	6 VERIFICATION C4.18A TEST	RUN DATE 10/23/68 EDI	T DATE 230CT68	SDS TIME 2418	AGC TIME 2417:07 ID	774 PAGE 14
PROGRAM 41	VERB 37 NOUN XX	R1 - R2	- R3	- FLASH 0	DSPTAB +11 00000	

PROGRAM 41	VERB 37	Neuk XX	R1 -	. R2	- R3	- FLASH 0	DSPT	AB +11 00000	
SDS					ENCE MATRIX		S/C A	TTITUDE MATE	ΙX
41222304	.79159081	45106113	412		9159081 451	06113	+46162915	•78532076	- + 41251493 -
.00042095	49491686	86894023			9491686 - +868	94023	•18519378	54010153	~ . 82097054
**91108286	~.35838706	•20368291	911	08285 35	5838706 •203	68291 -	.86752582	•30258870	= +39476347
REFSMMAT ER	GIMBAL ANGLE		AGC CDU						
Y= .000		51 • 85	51.90						
Z# ** 000		-1.72	*1.66	: :					
X= •000	A0G= -11.13	-11.13	-11.09						
STATE VECT	RX	RY	RZ	RSS	VX	-V-Y	VZ-	RSS	TIME
SDS CM	906763 • 1	5718361 • 4	-3253411+8	6641277 • 3	-7674 + 29	929 • 71	-525.44	7748 • 24	2414+58
AGC CM	907184 • 0	5718546 * 0	-3253512 • 0	6641542.9	-7672 • 95	930 • 40	-525.90	7747 * 02	
DELTA	-420.9	-184.6	100.2		-1.35	m*.69	*46	1 • 22	
SDS LM	880683.7	5733922.2	-3261879+4	6655323+0	-7670+70	889 • 13	-502-41	7738.38	2417+41
AGCLM.	880668.8	5733961.3	-3261862.2	6655346.4	-7670 +66	889.10	~502 - 45	7738 • 34	
DELTA	14.9	-39:2	-17.2	-23.4	- + 04	• 02	• 03	• 04	
PESITION	LAT	LONG	ALT	APOGEE	PERIGEE	AZIMUTH.	ELEVATION	RANGE	RANGE RATE
SDS CM	-29.51	32.09	268294.5	273752.3		66	26.52	31527.3	-29 - 19
SDS LM	-29:51	32+15	282312.0	278692.7	273448 • 1				
FLAGWD 0 00		02005 FLAGWD	2 00474 FLAG	WD 3 10004	FLAGWD 4 10000	FLAGND 5 43203	FLAGND 6	20000 FLAGW	D 7 00140
FLAGWD 8 50			*	,					
RCSFLAGS 00			66102 RSBB			CADR+1 76531		10004 FAILR	EG 00000
FAILRG+1 00			77777 PIPA		PIPAZ 77777				DES 00120
HOLDFLAG 77			2 11111 REDO		IWBDE 30 36000			01420 CHAN	12 00040
CHAN 13 00	101 CHAN 14	00000 CHAN 30	37373 CHAN	31 37777	CHAN 32 77777	CHAN 33 67765			
	1 * 07422		94336 CD		38086 CDU		ADOT	/ •415407	2E-02
ADOT/OBP		ADOT/0BY 889			55078 AK1		AK2	. 230712	
THETAD X -1				ETAD Z -1.1			DELL		
RTARG X -6					5646 TG0			IME1 2414.58	
	0000000					TOFF -2.918175	YACT		
	0000000				00000 AD8			/0BP - 168979	
ADOT/OBY THETAD Y 5	1.54785	AK .395 THETAD Z -1:17	55078 AK		33984 AK2			AD X -10.6787	
	372 • 820					TANG 61.50000	- DELT		
	3955078					MASS +0000000	CSMM		
	0000000	THETAD X -10.6				TAD Z =1:175537		/8CP -000000	
	•955175	VGTIG Z -1.05			8 • 571 X C		VGTI		
	5077438	JET FUE: 17 • 4		8SH AR =7 +8			Y CG	79900.7	
	4710 • 12		6 • 133 IX		*1853 IYZ			EG/S = 699411	
	1049118E-C1	WZ DEG/S - 664				CM/S2 +8861033E		M/S2 - 160897	
	4512131E-02					R88UT *000000C		M/S2 +429479	
AYSMM/S2					86765E=02	0000000	AAGI	02 1723173	01.01
			1	,					

PRBGRAM . 20 VERB	NOUN	R1 R2	R3	FLASH 0	- DSPTAB +1	.1 00000	
SDS REFERENCE		AGC REFEREN	NCE MATRIX		S/C ATTITU	JDE MATRI	<
+·41222304 •79159081	- 45196113	*00000000 *000	000000 *0000	0000		38624287	= . 37286210
*00042095 49491686	- 86894023	.00000000 .000	00000 000000	0000 .	14754653	+2208242	- + 89446998
9110828635838706	*20368291	*00000000 *000	00000 +0000	0000 7	95009708 41	19083619	- + 24677444
percentage of the state of the				,			
REFSMMAT ER GIMBAL ANGLE			SDS SHAFT			BS ALT	LOS CR
							-98 • 01.
				V ERROR	+53	1.98	= +-02
Y= +000 AIG= +0.41							
Y= +000 AIG= 40+1		TIME					
SDS CM 407041.3	5762244.8 -327812	1.7 6641929.6		423.25			2479.42
AGC CM 407576+0	5762483.9 -327825	3.3 6642237.3	~7730 • 57	424 • 11	-236.99	7745.82	
DELTA -534.7	-239-1 13	5 * 6 *307 * 7	-1 - 75	**86	+58	1+68	
SDS LM 403147.7 AGC LM 403145.6	5774113:2 -328450 5774072:9 *328455		-7724.53	406.58	=227·10	7738 + 56	2479.42
AGC LM 403145.6 DELTA 2.1			=7724±53		-227.07	7738 * 55	
DELIA Z+1	40.3	0.4 10.2	00	• 02	e = 03	*00	
p@SITION LAT	LONG AL	I APOGEE	PERIGEE	AZIMUTH	ELEVATION	RANGE	RANGE RATE
SDS CM #29.74	36.58 26899	1 • 1 273595 • 7	256280,9	-3.83	70+33	14028 . 6	~20,50
SDS LM -29.74	36.63 28220	2.1 278833.4	273174 • 2				
The same of the sa	A.A. A. Land A. T. Land						
FLAGWD 0 00310 FLAGWD 1 FLAGWD 8 50000 FLAGWD 9		FLAGWD 3 10004 .	FLAGWD 4 00001	FLAGWD 5 43203	FLAGWD 6 200	JO FLAGWD	7 00100
RCSFLAGS conol VHECNT	00000 TRKMKENT 00000	RCSFLAGS_00001	RSBBQ66102	RSBBQ+1_03304_	CADRELSH 560	16 CADR+1	46347
CADR+2 10132 FAILREG	00000 FAILRG+1 00000		PIPA X 00002	PIPA Y 77775	PIPA Z 776		FS 00120
HOLDFLAG 77776 DAPDATRI			IMBDE 30 36001	IMODE 33 26000	CHAN 11 010		
CHAN 13 00101 CHAN 14				CHAN 33 67765			
and the second of the second o		- whiteid	Clarity	A Principal Control of the Control o	The grade are the con-		
CDUX -6.866455	CDUY 40:37476	CDUZ =6.56			ADST/	- + 46301646	E-02
AD8T/8BP .3138856E-01	ADOT/88Y .1729355E-01	AK -:263		•1647949	- AKS	*3625488	
THETAD X -7-108154	THETAD Y 40.62744	THETAD Z =6.25		2388.540	DELLT4	1139.650	
RTARG X +6163634*	RTARG Y 2176504*	RTARG Z =1235			MARKDOWN		
MARKCDUY 6,888428	MARKCDUS -1-274414	MARKCDUZ =2:13		CDUT 3.532104		00000000	
RM •0000000 DELVSLVX =1 •173782	TPI 2018630: DELVSLVY8001328E-01	ECSTEER 1.00			TPASS4	3550 + 230	
RRATE =15.93809	AD8T/ 5850569E-02	DELVSLVZ *3.69 ADST/SSP *353		SLVS 3.880246 708Y .1729355E=	RANGE 01 AK	12236+00	
AK1 #9887696E=01	AK2 *3515625	THETAD X =7.10		AD Y 40.61646		-6,251221	
ELEV #41.07942	CENTANG 61.50000	DELTAR 1176				1.954889	
DELV3 7 #1:023436	DELV3 S 2.207279	LEMMASS .000			ERRORY	*2526855	
ERRORY **6591797E=01	ERRORZ3405762	WB8D/8CR :109		/OCP 2626889E -		18809001	
THETAD X =7.108154	THETAD Y 40.62744	THETAD 7 =6:25			LAT(SPL)		
LNG(SPL) -152,2167	VPRED 7701.699	GAMMAFI -114.		MASS 1788.571	X CG	8,466005	
Y CG •3071489	Z CG •5077438	JET FUEL 24.6		H AR -7 -886368	IXX	31119:44	
IYY 79900+74	IZZ 84710 • 12	IXY 2036		246 • 1853	IYZ	1424 = 454	
WX DEG/S6994114E-02	WY DEG/S .6294703E+01	WZ DEG/S .279	7646E=01 CONF		AXSCM/S2	- + 9327403	E=03
AYSCM/S2 1422429E - 02	AZSCM/S2 .6016175E-02			00000000 TUBBS	ZGYROOUT	*0000000	
AXSMM/S2 .3230181E-02	AYSMM/S25777264E=03	AZSMM/S2 .533	7611E-02 ARSM	1M/S2 .6265614E.	-02		

		-		V. E					
PROGRAM	VERB	NOUN	R1 -		R3	FLASH 0	DSPTAB	3 +11 00000	
PROGRAM	VERB	NOUN	R1	R2	R3	FLASH 0	DSPTAB	+11 00000	
SDS	REFERENCE N	ATRIX .		ACC PEEERS	NCE MATRIX		CAC ATT	TITUDE MATRIX	
41222304	•79159081	45106113	- + 4122				28278065		-+35947561
*00042095	49491686	86894023	*00048	209549	491686 8689	4023 *			89704347
91108286	35838706	*20368291	91108	828535	838706 • 2036	8291 ==	94611120	•19693351	* + 25707936
REFSMMAT ER	GIMBAL ANGLE	S SDS CDU	AGC CDU	AGC SHAFT	SDS SHAFT		Les DR	LOS ALT	LOS CR
	AIG= 40:91	40.91	40+98	= + 03	10.99		168 • 78	701 • 11	-116+29
Z=000	AMG= -7.33	-7-33	-7+32	AGC TRUN	SDS TRUN	V ERROR	*62	1.94	= • 06
×= +000	A8G= -7.27	-7.27	-7.24	,01	149 • 46		- 52	4-51	00
STATE VECT	RX -49768+6	8Y 5773564+2	RZ -3284280+0	RSS 6642515 • 8	-7746.66	vY =39∙67	27.72	RSS 7746.81	TIME 2538+42
AGC CM	-49132.0			6642849.1	⇒7744 • 95 ···	=38+76	27 • 1 1	7745 • 10	2030 • 42
DELTA	-636+6	-291.2	171 • 8	-333.3	-1.70	91	•61	1 • 71	
SDS LM	-53190.5		-3290147.6	6654950 • 3	=7738+49	-54.57	35.99	7738.77	2538 • 42
AGC LM DELTA	-53192.5 2.0	5784460 • 7 41 • 3	-3290196 • 3 48 • 8	6654938.5	-7738 • 49	-54.58	36 • 03	7738 • 77	
DELIA	2 * 0	41+3	48.8	11 + 8	00	• 02	-*03	• 00	
POSITION	LAT	LONG	ALT	APOGEE	PERIGEE	AZIMUTH	ELEVATION	RANGE	RANGE RATE
SDS CM	-29.80	4C * 87	269596.0	273393 • 1	256447.7	-5.25	74+95	12875.2	-18+60
SDS LM	+29 • 79	40.90	282029 . 6.	278996 • 0	272978 • 1				
FLAGWD 0 000	OO FLAGWO 1	OOOOO FLAGED 2	OOOOO FLAGWI	D 3 00000	FLAGWD '4 DODGO	FLAGWD 5 00200	FLAGWO 6 7	DODOO FLAGWO	7 00100
FLAGWD 8 000					1 00000	12/10/0 0 000200	, ending o	70000 TENGHO	, 00100
RCSFLAGS 000			66102 RSBBQ		CADRFLSH 56016	CADR+1 73174		10132 FAILREG	0.0000
FAILRG+1 000			00004 PIPA		PIPA Z 77707	FLAG 10 00000		DOODO BPTMBDE	
	76 DAPDATR1					IMBDE 33 26040	CHAN 11	00000 CHAN 12	.00000
CHAN 13 001	.00 CHAN 14	00000 CHAN 30	37373 CHAN	31 37777	CHAN 32 77777	CHAN 33 67765			
CDUX -7.	239990	CDUY 40.94	604 CDU	7 -7 -27	2949 CDUT	-19.76440	ADBI	*2621860E	=01
ADST/8BP6		AD8T/88Y -+2033	3785E+01 AK	.29€	6309 AK1	5603027	AK2	•3735352	
THETAD X +7.		THETAD Y 40 . 42		TAD Z -6.66		2388.540	BEST 1		
	666667	MRKTIME1 40446			3723E-01 STAR				
STAR RS1 +8 STAR RS2 +8	8011438E-01 8804932	MRKTIME2 2388		R X2 **151		Y2 8804932	STAR 2		
VGTIG Y -53		VGTIG Z -485.4		T/ +262	9327E 08 RSP-	RREC 506002 * C /8BP = •6765873E -	VGTIG		
	966309	AK1 = 5603				AD X =7.042236		BBY - 2033785E	-01
THETAD Z -6.		0GC •0000			00000 MGC	*7655360E*			
LAUNCHAZ 14		LEMMASS .0000			20.00 ERRO		ERRARY		
	3735352	WB8D/8CR -1047	7738E=02 WBB	D/8CP .555	9112E-03 WB0D	/OCY 1394749E-		X -7.569580	
THETAD Y 40		THETAD Z -6.822		MASS 1788			Y CG	+3071489	
	5077438	JET FUEL 25.05		SH AR =7.88		31119.44	IYY	79900.74	
177 84	-710-12	TVV 2036.	122 177	246.	1950 177	1424.454	1. V = C (0 10 . 4004114	-00

246 . 1853

1 . 000000

.4717075E-02

.0000000

IYZ

1424.454

AXSCM/S2 - . 9327403E-03

ZGYR88UT .0000000

WX DEG/S .6994114E-02

AYSCM/S2 - . 1329155E - 02

AXSMM/S2 +2220068E=02

84710:12

AZSCM/S2 .4418857F-02

AYSMM/52 - . 6358624E - C3

*3846763E=01

IXY

XGYROOUT

AZSMM/S2

2036 • 133

*0000000

.4113122E=02

wZ DEG/S - . 1398823E + 01

IXZ

CONFIG

YGYROOUT

ARSMM/S2

IZZ

WY DEG/S

PROGRAM 3	0 VERB 06	N6UN 33	R1 +00000	R2 +00039	R3 ~048XX	FLASH 1	DSPTAB -	+11 00000	
4122230 **0004209 -*9110828	•79159081 ••49491686 ••35838706	*ATRIX ,451,66113 ,86894023 -20368291	AGC REF *00000000 *00000000 *00000000	FERENCE MATRI *0000000 *0000000 *0000000	************************************		43680620 20236182	TUDE MATRI •84895086 •41493201 •32727981	X 29745817 88706279 35304093
REFSMMAT E Y= +00 Z= +00 X= +00	00 AIG= 50.62 00 AMG= +9.29	. 50.62 .50 -9.29 -9	• 42 agc	.03 10	99 R TRUN V	ERROR ERROR	L0S DR .222.63 .73	LOS ALT 803:35 1:88	LOS CR -160*38
STATE VECT SDS CM AGC CM DELTA	RX -506343.2 -505607.8 -735.5	5757916.2 -327506	4.5 664309	8 • 6 -7723	++35 -5	VY 502+27 501+32 =+95	291.65 291.01	RSS 7746 • 15 7744 • 43 1 • 73	TIME 2597•42
SDS LM AGC LM DELTA	*509278.5 *509280.4 2.0	5767636+3 =328031	0.0 665472	9.8 -7716		515.50 515.52 •02	298.94 298.98 04	7739 • 03 7739 • 03 - • 00	2597 • 42
POSITION SDS CM SDS LM	LAT =29.70 =29.70	45 • 17 28179	1 · 3 27323 1 · 5 27919	8 • 2 256655 7 • 7 272834	9•3 ••4	-8.17	ELEVATION 79.90	RANGE 11834+2	RANGE RATE -16+69
HOLDFLAG 7	00000 FLAGWD 9 00011 VHFCNT . 73647 FAILREG 77776 DAPDATR1	00000 00000 TRKMKCNT 00000 00000 FAILRG+1 00000	RCSFLAGS 000 FAILRG+2 000 REDBCTR 000	11 RSBBQ 6	66102 RSBB 00007 PIPA 36001 IMOD	Q+1 03304	PIPA Z 771 CHAN 11 010	016 CADR+1 755 OPTMOD 040 CHAN 1	73174 ES 00120
ADOT/OBP .	-6163634.	CDUY 50.14160 AD8T/8BY2033785E-01 THETAD Y 46.51611 RTARG Y 2176504. MARKCDUS -1.274414		1235646.		-19.76440 -:5603027 -2388:540 -1828:500 -3:532104	ADOT/ AK2 DELLT4 MARKDOWI MARKCDU	*2621860 *3735352 1139*650 N 404463*1 X *0000000	
AK1 ELEV	-19.55333 5603027 -41.07942 -1.023436 .5603027 -7.569580	TPI 2018630. DELVSLVY -8001328E-01 AK2 6201860E-01 AK2 61.50000 DELV3 S 2.207279 ERRORZ3735352 THETAD Y 40.08911 VPRED 7701,699	DELYSLVZ - AD0T/08P - THETAD X - DELTAR	•6765873E •02 7.712402 117620 •0 •0000000 •0000000 6.822510	THETAD Y	*0000000 3*880246 -2033785= 46*51611 *5540848E= 26520*00 *0000000 53*71069	TPASS4 RANGE O1 AK THETAD	3550 • 230 13110 • 00 • 2966309 Z • 8 • 569336 1 • 954889 • • 3076172 Y • 00000000) 27 • 92083	
Y CG IYY WX DEG/S AYSCM/S2	-3071489 79900-74 -9791760E-01 -1515703E-02 -6031609E-03	Z CG .5077438 IZZ 84710.12 WY DEG/S .2762675 AZSCM/S2 .1504044E-0/ AYSMM/S21115485E-0/	JET FUEL IXY WZ DEG/S XGYROOUT		SLOSH AR IXZ CONFIG YGYROOUT ARSMM/SZ		IXX IYZ AXSCM/S ZGYROOU	31119•44 1424•454 2 -•9327403	E=03

PROGRAM 40 VERB 37	NOUN -	R1 10000 - R2	R3-7	7 - FLASH 1	DSPTA	B +11 00000	
SDS REFERENCE	MATRIX	AGC REFERI	ENCE MATRIX		S/C AT	TITUDE MATRIX	
41222304 .79159081			9159081 4510	6113	·75986171		= • ∩9996271
.0004209549491686			9491686 - 8689		•31116271		- 081163645
9110828635838706			5838706 • 20368		•57077742		57554603
-21100500 -230030100	-50300C>I	>TINOSOD+3:	Jese/Ve • 50360	oc > T	*3/0//42	• 20202000)	0/554603
REFSMMAT ER GIMBAL ANGL		CDU AGC SHAF	T SDS SHAFT		Les DR	LOS ALT	LOS CR
Y= *000 AIG= 75*70	75.70 7	5.28 =.03	10:99	R ERROR	293 • 68	864 • 70	-332+31
Z=000 AMG= -13.34	-13.34 -1	3.27 AGC TRU		V ERROR	*84	1 • 75	45
X= +000 A0G= -12.47		2.39 .01			,		40
OTLIF WEST DU	RY R7						
STATE VECT RX			VX	VY	٧Z	RSS	TIME
SDS CM -983513.7			-7661.55	-985-68	567 * 42	7745.51	2659 * 42
AGC_CM =982678.7			-7659 • 98	-984.68	566.76	7743.78	
DELTA -835.0	=406.e3 2	48.63472.	-1.57	-1.00	• 66	1.73	
SDS LM -985936.3	5720762+3 -32531	98.4 6654509.1	-7653·35	-997.28	573.75	7739.35	2659 • 42
AGC LM +985938 + 3			*7653 · 34	-997.30	573.79	77.39 • 35	2000-12
DELTA 2.0		44.3 15.3	=+00	•02	04	77.32433	
	-		- + 00	702	-+0+	7 * 00	
POSITION LAT		LT APOGEE	PERIGEE	AZIMUTH	ELEVATION	RANGE	RANGE RATE
SDS CM +29.43	49 • 64 2706	47.7 273115.4	256939.7	-18.74	85 • 37	10860 • 8	-14.71
SDS LM -29.43	49.65 2814	72.2 279464.3	272726,4				*
FLAGWD O DOODD FLAGWD 1	00000 FLAGWD 2 00600	FLAGWD 3 10000	FI AGWD 4 10040	FLAGWD 5 40200	FLAGWD 6	OCOOO FLAGWO	7 00100
FLAGWD 8 50000 FLAGWD 9		. 2. 3 5 6 10000	. 2	. 2 0 , 40200	, 0 1	OCCOOL LEVELD	, 00,100
RCSFLAGS 00011 RCSFLAGS		RSBBQ+1 03304	CADDELSH EGATA	CADR+1 73174	CADR+2	10004 FAILREG	00000
FAILRG+1 00000 FAILRG+2			PIPAZ 77662	FLAG 10 00000			
HOLDFLAG 77776 DAPDATRI			IMODE 30 36001				S 00120
			11100E 30 36001	THOUT 33 50000	CHAN II	OTODO CHAN 15	00000
CHAN 13 00100 CHAN 14	00000 CHAN 30 3/3/3	CHAN 31 3/1//	CHAN 32 /////	CHAN 33 6/765			
CDUX -12.30469	CDUY 74.73999	CDUZ ~13:	16162 CDUT	-19.76440	AD8T/	+2621860F	-01
AD01/0BP -: 6765873E-02	AD01/08Y 2033785E-0	1 AK	66309 AK1	5603027	AK2	*3735352	
THETAD X *11.33789	THETAD Y 68.59863	THETAD Z -12.		2388.540	DELLT	4 1139 + 650	
RTARG X -6163634.	RTARG Y 2176504 *		5646 TG0	=11013 • 16	PIPTI		
DELV X .0000000	DELV Y .0000000			OFF -2.918175	YACTO		
PCMD •0000000	YCMD •0000000		OOOOO ADOT			BBP6765873F	-02
AD0T/08Y - 2033785F-01	AK .2966309		03027 AK2	.3735352		D X =11,33789	. 04
THETAD Y 68.59863	THETAD 7 -12:07397		07942 CENT			R 117620.0	
TEVENT 2372+820	PCMD +000000		GOGGG LEMM		CSMMA		
ERRORX = • 3076172	ERRORY +5603027			/8CR +0000000			
WB6D/6CY +0000000	THETAD X =7.569580	THETAD Y 40:			WB6D/		
				AD. Z -6.822510		X *9.606934	
	VGTIG Z -485.4254		8.571 X CG		Y CG	.3071489	
Z CG •5077438	JET FUEL 25.03491	SLOSH AR -7.8		31119.44	IYY	79900 • 74	
IZZ 84710·12	IXY 2036:133		•1853 IYZ	1424,454		G/S1958352	
WY DEG/S .5175644	WZ DEG/S .2797646E-0			M/S2 +0000000		/S2 - 1235881E	
AZSCM/S2 .4698679E-02	XGYROOUT .000C000 .			0000000 TUBB	AXSMM	/52 +47053828	-02
A VENMICO 10EONOEF AO	4.70 MM / CO 4.000000/F 0	2 10044100 10	(DOO(E DO				

AYSMM/S2 -.1853085E-03 AZSMM/S2 .1239024E-02 ARSMM/S2 .4869306E-02

PROGRAM 40 VERB	N8UN 99	R1 -99999 R2 +99007	R3 +04006 FLASH 0	DSPTAB +11 00000	
SDS REFERENCE M79159081 -00042095494916869110828635838706	45106113 86894023	AGC REFERENCE MAT •41222304 •79159081 •00042095 -•49491686 •91108285 -•35838706	45106113 86894023	S/C ATTITUDE MATE *93282056 •19146061 *35012698 •68187547 •08519411 •70596671	*30526924 64222813 70310378
REFSMMAT ER GIMBAL ANGLE: Y= *000 AIG= 113*41 Z= **000 AMG= *21*08 X= *000 A8G= *16*28	S SDS CDU AGC (· 113 · 41 112; - 21 · 08 - 20; - 16 · 28 - 16;	76 = 03 1 96 AGC TRUN SD	SHAFT 0•99 R ERRER. S TRUN V ERRER 6•40	L8S DR L8S ALT -706.0896 -1.04	L8S CR -737 • 18 -1 • 35
STATE VECT RX SDS CM -1440427.6 AGC CM -1439501.2 DELTA -926.4	RY 5638367 • 2 -3206225 5638834 • 3 -320651 -467 • 1 . 288	7.9 6644239.8 -75 7.9 6644574.7 -75	VX 62.70 -1448.51 61.22 -1447.48 -1.48 -1.03	VZ 831.41 7744.93 830.74 7743.22 .68 1.71	71ME 2719•42
SDS LM -1442365.6 AGC LM -1442367.6 DELTA 2.0	5647 ₀ 54+0 ~321 ₀ 866 5647 ₀ 09+7 ~321 ₀ 9 ₀ 44+3 4		54.79 = 1458.68 54.78 = 1458.69 00 • 02	836.89 7739.7 ₀ 836.94 7739.7 ₀ 05 ~.00	
POSITION LAT SDS CM =29.01 SDS LM =29.01	L8NG AL 53.95 27107 53.95 28109	1.4 273024.2 2572	GEE AZIMUTH 76.0 -132.13 48.8	RANGE 87.95 10034.0	RANGE RATE
FLAGWD 0 00200 FLAGWD 1 FLAGWD 8 50000 FLAGWD 9 RCSFLAGS 00011 RCSFLAGS FAILRG+1 00000 FAILRG+2 HGLDFLAG 00001 DAPDATR1 CHAN 13 00100 CHAN 14	00000 00015 RSBBQ 66102 00000 PIPA X 00020 11103 DAPDATR2 11111	FLAGWD 3 10000 FLAGWD 4 RSBBQ+1 03304 CADRFLSH PIPA Y 77773 PIPAZ REDBCTR 00000 IMBDE 3C CHAN 31 37777 CHAN 32	56016 CADR+1 73174 76607 FLAG 10 00000 36001 IM6DL 33 26000	FLAG 11 00000 BPTM CHAN 11 01000 CHAN	WD 7 00100 REG 00000 8DES 00120 12 00000
AD07.08P6765873E-02. THETAD X -12.53540 RTARG X -6163634* DELV X .000000 PCMD .000000 PCMD .2033785E-01 THETAD Y 76.16821 THEYAN 2372.820 ERRORX .000000 WB0076CY .000000 VGT1G Y .10.34088 Z CG .5077438 IZZ 84710.12 WY DEG/S .7133996	CDUY 112.0276 AD8T/88Y -2033785E-01 THETAD Y 76:16821 RTARG Y 217650+ DELV Y .0000000 AK .2966309 THETAD Z -13.41431 PCMD .0000000 ERR8RY .0000000 ERR8RY .0000000 THETAD X 43.71460 VGTIG Z .29.16908 JET FUEL 25.01196 IXY .2036.133 WZ DEG/S .2797646E-01 x6VR980U .0000485	CDUZ	CDUT -19.76440 AK1 -5603027 TIG 2388.540 TG9 -1110.440 PACTOFF -2.918175 AD8T7 .2621860E AK2 .3735352 CENTANG 61.50000 UEMMASS .0000000 WB8D/BCR .0000000 THETAD Z .056615 X CG 8.466005 IXX 31119.44 IYZ 1424.454 AXSCM/S2 48861033E ZGYRRBUT .0000000	THETAD X -12.535 DELTAR 117620 CSMMASS 26520 WB80/8CP .00000 VGIIG X -37.725 Y CG .30714 TYY .30074 XX DEG/S -30074	52 50 50 50 73E-02 40 00 00 00 64 89 74 69 55E+02
	AZSMM/S22637921E-02	ARSMM/S2 .4724602E-02		WYGUEL/25 #33053	/25406

TAPE WEDB RUN 6 VERIFICATION C4+18A TEST RUN DATE 10/23/68 EDIT DATE 230CT68	SDS TIME 2847 AGC TIME 2777.61 ID 777 PAGE 20
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PRØGRAM PRØGRAM	VERB 99 VERB 99	66 YABN 66 YABN	R1 =5		-99999 R3 +9 -99999 R3 +9	99 FLASH (AB +11 00000 AB +11 00000	
SDS	REFERENCE 1	MATRIY:		AGC REFERE	NCE MATRIX		S/C 41	FTITUDE MATRI	Y
41222304	.79159081	45106113	- + 4122	22304 • 79	159081 4510	6113	**50900126	34853506	78704596
• 00042095		- 486894023	• 000					74402928	*56258821
91108286	. ** 35838706	*20368291	9110	0828535	838706 •2036	8291	• 78166676	•57003784	•25308704
REFSMMAT ER	GIMBAL ANGLE	ES SDS CDU	AGC CDU	AGC SHAFT	SDS SHAFT		Les DR	Les ALT	LOS CR
Y= -000	AIG= -56 00	-56.00	-13.75	-:04	10.99	-R ERROR-	601.75	-1175 - 09	-113.61
Z=000		58 • 89	13.62	AGC TRUN	SDS TRUN	V ERROR	1 • 16	-1.37	··29
X= *000	ABG= 103.52	103.52	13.74	*01	140.55				
STATE VECT	RX	RY	RZ	RSS	VX	vY	VZ	RSS	TIME
SDS CM	-2388867 • 2	5391014.6	-3064483 • 1	6645357.9	-7229 • 19	-2409 • 14	1379.22	7743 • 86	2847.42
AGC. CM	=2387764.9	5391616.9	-3064860 · O	6645624 . 2	-7227.93	*2408 · 07	1378 • 52	7742.23	
DELTA	-1102.3	-602 • 2	376.9	-266.3	-1 . 26	-1 - 07	.70	1 • 63	
SDS LM	-2389856.9	5398572+9	*3068516.*3	66537.05 . 6	=7222:39	=2416.73	1383 * 18	7740.59	2847.42
AGC LM	~2389858 • 3	5398526 • 6	-3068551 • 1	6653684 . 5	-7222 • 38	-2416.75	1383 - 23	7740.59	
DELTA	1 • 4	46.3	34 • 8	21 • 0	01	• 05	06	-+01	
POSITION	LAT	LONG	ALT	APRGEE	PERIGEE	AZIMUTH	ELEVATION	RANGE	RANGE RATE
SDS CM	-27.62	62.98	271756 • 4	272872 • 4	258230+3	-173 - 88	75.45	8624.0	-9.28
SDS LM.	*27.62	62,96	280104 • 6	280733.9	272505 • 3				
			2 00000 FLAG	MD 3 00000	FLAGWD 4 00000	FLAGWD 5 0020	O FL'AGWD 6	00000 FLAGWE	7 00100
	000 FLAGWD 9				7, 7, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1,	SAMOON A TO S			
RCSFLAGS 00			42106 RSBB		CADRFLSH 56016			56016 FAILRE	
FAILRG+1 00					PIPA Z 77772				DES 00120
HOLDFLAG 77		11103 DAPDAT			IMODE 30 36075			-00000CHAN_1	rs 00000
CHAN 13 00	100 CHAN 14	00000 CHAN 3	0 3/3/3 CHAN	31 3////	CHAN 32 77777	CHAN 33 4//6	5		
	07.8857		50293 CD		35.718 CDUT				
	2156497E-01	ADOT/08Y 48			3165E-01 AK1	3735352		•1098633	
THETAD X 1		THETAD Y -55.		ETAD Z 44.4		2388 • 540			
	1666667	MRKTIME1 404				R Y1 -,2367206			
STAR RS1 .		MRKTIME2 238				Y28804932			
	8864932		616.0 HP			RREC 506002.0		G X =37.72564	
	0.34088 5493165F=01	VGTIG Z =29 •	16908 AD			7/08P •2156497 TAD X 108.0176		/08Y -: 4846752 AD Y -55.5688	
AK »					18633 IHE			20 Y ~55.5688	

.0000000

26520.00

+00000000

1788 - 571

246 • 1853

1 . 000000

.4864970E-02

MGC

X CG

IXX

IYZ

ZGYROOUT

ERRORX

WB8D/8CY .0000000

.7655360E=01

-.5493165E-01

8 : 466005

31119.44

1424.454

+0000000

AXSCM/S2 -.9327403E-03

TEVENT

ERRORY

Y CG

IYY.

2372 . 820

·3735352

·3071489

79900.74 WX DEG/S -- 1363852

THETAD X 108 + 0176

AYSCM/S2 --1515703E-02

AXSMM/S2 *3760672E *02

IGC

IXZ

CONFIG

CSMMASS

WB0D/8CP

S/C MASS

ARSMM/G2

SLBSH AR -7.886368

YGYR88UT .0000000

THETAD Z 44.42871

LAUNCHAZ 147.5684

THETAD Y -55.56885

WY DEG/S .3357175

AZSCM/S2 -4512131E-C2

AYSMM/S2 - + 2899533E = 02

ERRORZ

122

Z CG

- 1208496

.5077438

84710.12

OGC

IXY

LEMMASS

THETAD Z

JET FUEL

*0000000

44 • 42871

37.34412

WZ DEG/S - . 4196469E-01

AZSMM/S2 +1057349E-02

2036:133

WB8D/8CR .0000000

XGYR00UT ...0000000

PROGRAM VERB 99	N8UN 99	P1 00000 00	-99999 R3 +9	99 FLASH 0	DSPTA8 +1	1 00000	
PROGRAM VERB 99	NOUN 99		→99999 R3 +9		DSPTAB +1		
SDS REFERENCE N 41222304 +79159081			ENCE MATRIX -		S/C ATTITU		
41222304	45106113 86894023	41222304 ·7	9159081 4510			35420275	79066658
**91108286 **35838706	.20368291		9491686 8689 5838706 8036			74712920	.56042290
21108260 *33636706	120300231	=*21100502 **3	2979100 45030	0521	78923321 •5	10243873	. *24651933
REFSMMAT ER GIMBAL ANGLE	S SDS CDU AGC	CDU AGC SHAF	T SDS SHAFT	. 4	LOS DR L	OS ALT	100 00
Y= ±000 AIG= =56:17		490 #404		R ERROR		-1177 - 21	L0S CR
Z=000 AMG= 59.56		27 AGC TRU		V ERROR	1 • 16	-1.37	29
X= .000 ABG= 103,39		.47 .01		7 ha (1110)11	1410	-7.421	-167

STATE VECT RX	RY RZ	RSS	VX	VY	VZ	RSS	TIME
SDS CM -2403319.0	5386181.7 -30617:			-2423.78	1387 • 56	7743.85	2849,42
AGC_CM2402214+2	5386786 - 1 - 306209			*2422*71	1386.87	7742.21	
DELTA -1104-8	*604.4 37	78.3 -264.7	-1:26	-1+07	.70	1.63	
SDS LM #2404295 *2	5393724.8 =306574	. 7 //50/5/ 5	=7215.90	212. 22			
AGC LM =2404290.2	5393724 · 8 · 306574 5393678 · 4 · 306577			-2431-33		7740.60	2849.42
DELTA 1.4		76.3 6653675.2 84.7 21.1		*2431 · 35	1391.56	7740.61	
DELIA	40+4	ST 07	01	+02	- • 06	- + 01	
POSITION LAT	L8NG AL	T APRGEE	PERIGEE	AZIMUTH	ELEVATION	RANGE	RANGE RATE
SDS CM #27.59	63.12 27176			*173*97	75.24	8605 • 5	*9·23
SDS LM -27.59	63+10 28008						-5765
No. of the contract of the con							
FLAGWD 0 00000 FLAGWD 1		FLAGWD 3 00000	FLAGWD 4 00000	FLAGWD 5 00200	FLAGWD 6 0000	O FLAGWD	7 00100
FLAGWD 8 00000 FLAGWD 9							
RCSFLAGS 00001 RCSFLAGS		RSBBQ+1 03434	CADRFLSH 56016	CADR+1 73174	CADR+2 - 5601		G - 00000
FAILRG+1 00000 FAILRG+2 HOLDFLAG 77776 DAPDATR1		PIPA Y 77772 REDECTR 00001	PIPA Z 00035 IMBDE 30 36075	FLAG 10 00000 IMBDE 33 26040	FLAG 11 0000		ES 00120
CHAN 13 00100 CHAN 14	00000 CHAN 30 37373	CHAN 31 37777	CHAN 32 77777	CHAN 33 47765	CMAN_II 0000	JUUHAN_I	2 00000
CHAIR 25 00100 CHAIR 14	00000 CAAN 30 37373	CHWM 21 21111	CHAIR OF 11111	CHAN 33 17763			
CDUX 83.68286	CDUY *55+79956	CDU2 58*	91968 CDUT	-19.76715	\TBOA	.1206995	F=02
AD0T/08P .2156497E-01	ADST/6BY 4846752E . 0:	AK .54	93165E-01 AK1	**3735352	AK2	*1098633	
THETAD X 108:0176	THETAD Y -55.56885		42871 TIG	2388 + 540	BEST I	.0000000	
BEST J • 1666667	MRKTIME1 404463.1			.Y1 2367206E.			
STAR RS1 .8011438E=01	MRKTIME2 2388.540		15672E=03 STAR		STAR Z2	.0000000	
STAR RS2 +8804932	HAP8 400616.0			RREC 506002.0	VGTIG X	-37.72564	
VGT16 Y -10:34088	VGTIG Z -29:16908			/88P .2156497E.		**4846752	
AK .5493165E=01 THETAD Z 44.42871	AK13735352			AD X 108.0176	THETAD Y	-55,56885	
LAUNCHAZ 147.5684	*0000000 LEMMASS *0000000		000000 MGC 20:00 ERRS	• 7655360E=	O1 TEVENT	2372 + 820 +3735352	
ERRORZ = 1208496	WB9D/8CR *0000000			/9CY +0000000	THETAD X		
THETAD Y +55+56885	THETAD Z 44.42871		38+571 X CG		Y CG	*3071489	
Z CG •5077438	JET FUEL 37.34375	SLOSH AR -7.8		31119.44	IYY	79900.74	
IZZ 84710:12	IXY 2036:133		.1853 IYZ	1424 - 454		**1328882	
WY DEG/S .3462086	WZ DEG/S -+2797646E-0			M/S2 .8861033E	03 AYSCM/S2	-,1235881	E=02
AZSCM/S2 .4791953E=02	XGYR66UT .0000000	YGYROOUT .OC		88UT +0000000		*4283896	
AYSMM/S2 **1431599E=02	AZSMM/S2 .2245503E-0	2 ARSMM/\$2 .50)44157E=02				

PROGRAM 40 VERB 50	NIBURE 4.0	04 40000	00 -001/5 00	. 04407		
PROGRAM 40 VERB 50	NOUN 18-	K1 +10230	RZ +30468 R3	+0442/ FLASH	1 - DSPTAB +1	1 00000
SDS REFERENCE	MATRIX	AGC F	REFERENCE MATRIX		S/C ATTITU	DE MATRIY
41222304 .79159081	45106113			5106113		3073769 - 65820432
•0004209549491686	86894023	• 00042095	494916868			3595643 •59982467
9110828635838706		91108285				3649607 +45494771
REFSMMAT ER GIMBAL ANGL						
			SHAFT SDS SHA			es alt les cr
Y= .000 AIG= -55.74	-55 - 74	~55+60	04 10.99			1223 • 20 = 88 • 66
Z= = • COO AMG= 43 = 30	43.30		TRUN SDS TR		1.22	-1.2424
X= *000 A8G= 102 * 47	102.47	102,43	.01 145.03			
STATE VECT RX	RY	- RZ RSS	S	V Y	V Z	RSS TIME
SDS CM -2760170+0	5255920*3 -2	987165 9 66457		2 ≠2785 • 20		7743.49 2899.42
AGC CM -2759004+9	5256578 1 -2	987579 0 66460	02.5 -7046.1	6 =2784 = 13		7741.91
DELIA -1165 • 1	₹657×9		22 • 2 -1 • 1		•69	1,58
SDS LM -2760821.4	50121-1 0 0	2011-1 / //501		070.05		
AGC LM2760821.4		991006+6 66534				7740.99 2899.42
		991038 2 66534				7.741 • 00
DELTA 1+1	47 • 2	31 • 6	22.70	1 •02	06	T + O1
POSITION LAT		ALT AP80	BEL PERIGEE	AZIMUTH	ELEVATION	RANGE RANGE RATE
SDS CM =26.86	66.57	271951 • 1 2728	310.7 258713.9	-175 - 59	69.98	8173.9 +8.06
SDS LM -26.87	66 • 55	279632 • 8 2812	272435 • 1			
FLAGWD 0 00200 FLAGND 1	00000 FLAGWD 2 0	0734 FLAGWD 3 10	0004 FLAGWD 4 100	00 FLAGWD 5 4020	P FLAGED 6 2000	O FLAGWO 7 OOLOO
FLAGWD 8 50000 FLAGWD 9				90		
RCSFLAGS 00011 RCSFLAGS	00011 RSBEG 4	2106 RSBBQ+1 03	3434 CADRFLSH 560	16 CADR+1 7317	4 CADR+2 5601	6 FAILREG ODDOO
FAILRG+1 00000 FAILRG+2			7770 PIPAZ 003			
HOLDFLAG 77776 DAPDATR1				01 IMBDE 33 2600		O CHAN 12 00040
CHAN 13 40100 CHAN 14						
0011	### FF # 1.1		. 17			
CDUX 102.4255	CDUY -55.7446			DUT -19-76715		•1494560
AD01/08P -2.060493	AD0T/08Y .402398			K1 ~1 +636963		- 1757812
THETAD X 102.3047	THETAD Y -55:3051			IG 2388.540		1139.650
RTARG X -6163634.	RTARG Y 2176504			G6 =24187 · 24		2418.580
DELV X. •0000000	DELV Y			ACTOFF = 2.918175		2.230150
PCMD *0000000 AD0T/08Y *4023985F-01	YCMD +000000			DOT/ •1452718		
THETAD Y -55.30518				K22197266		
	THETAD Z 44.2749			ENTANG 61.50000		117620 • 0
TEVENT 2372+820 FRRBRX ++3295899E+01	PCMD ,000000 ERRBRY714111			EMMASS .0000000		26520.00
				B0D/8CR .0000000		.0000000
WB8D/8CY +0000000	THETAD X 102.304			HETAD Z 44.27490		
VGTIG Y -10.61211	VGT1G Z -29.0147			CG 8.466005		.3071489
Z CG •5077438	JET FUEL 43.8558			XX 31119 • 44		79900.74
IZZ 84710+12 WY DEG/S -+2832616	IXY 2036+13			YZ 1424 • 454		
AZSCM/S2 +5497338F=01				XSCM/S2 .0000000		1065656E=01
AZSUF/SZ *545/338E#U1	XGYR68UT .000000		· COCOOOO 2	GYR88UT +0000000	AXSMM/52	•3833342E=01

AZSMM/S2 .1663416E-01 ARSMM/S2 .5614711E-01

AYSMM/S2 = .3750135E=01

pROGRAM	40 VERB 06	NOUN 40	R1	-00 15 R2	+01813 R3 +0	2085 . FLASH 0	DSPTA	B +11 00400	
-:41222 +000420 -:91108	095 49491686		*00	222304 • 75 042095 • • 45	INCE MATRIX 9159081 = 4510 9491686 = 8689 5838706 • 2036	4023	S/C AT •85982800 •03081775 •50965309	TITUDE MATRI 32344246 73947668 -59038830	X
REFSMMAT	ER GIMBAL ANGL	E SDS CDU	AGC COU			> -			
Y =	000 AIG= -71:33	=71·33 .	-69 • 70	,		* *			
	000. AMG= 30:20	30 - 20	32.04						
X= +)	000 A8G= 104+64	104 • 64	105 • 18					*	
STATE VE		RY	RZ	- RSS	VX	VY	- vZ	-RSS-	- TIME
SDS CM	-2670499:4	5290898 • 1	-3011030:1	6647666 • 7	-6982 * 64	-2776 • 17	1895:36	7749 • 63	2885.94
AGC CM DELTA	-2662982 · C -7517 · 4	5293796.0	-3008922+0	6646003 • 4	-7076 • 58 93 • 94	-2679.06	1518 • 48	7717.58	
DELLA	=/51/:4	-2897.9	-2108 - 1	1663+3	93.94	97.11	376.88	32 • 05	
SDS LM	-3169352.5	5086149 . 8	~2889808+4	6653172.7	-6804.29	-3205.25	1832 • 62	7741 = 48	2958 • 41
AGC LM	-3169353.3	5086101 • 4	-2889836.2	6653148+2	9	-3205 - 27	1832 • 69	7741 • 50	
DELTA	+ 8	48.3	27 . 8	24.5	- · 01	• 02	-+07	-•01	
POSITION	LAT.	LONG	ALT.	APOGEE	PERIGEE	AZIMUTH	ELEVATION	RANGE	RANGE RATE
SDS CM	~25 * 89		272177 • 1	340067 * 3	265223 • 6	50	2 • 98	552694 • 4	*15 · 78
SDS LM	-25 • 89	7c+55	279056.7	281859.5	272337•2				
FLAGWD 0			2 Q2334 FLA	GWD 3 10.004	FLAGWD 4 00000	FLAGWD 5 40302	FLAGND 6	50000 FLAGWD	7 16140
RCSFLAGS			42106 RSE	BQ+1 03434	CADRFLSH 56016	CADR+1 73174	CADR+2	51273 FAILRE	G 01111
FAILRG+1	00000 FAILRG+2	00000 PIPA X		A Y 00060	PIPAZ 00061	FLAG 10 00000	FLAG 11		ES 00120
HOLDFLAG				OCTR 00001	IMBDE 30 36000	IMODE 33 56000		11420 CHAN 1	2 02242
CHAN 13	00100 . CHAN 14	00000 CHAN 30	37373 CHA	N_31 _37777_	CHAN 32 77777	CHAN 33 .67767			
CDUX	105,6665	CDUY -67.5			88184 CDUT		ADOT,	-10.98633	
	- • 1536939	_AD0T/0BY •161			86035 AK1	-+3076172	AK2	•2416992	
THETAD X				HETAD Z =64.		2903.350	DELLI		
	-6163634. 2:223000			TARG Z -123		15.41000	PIPTI		
PCMD	- · 8303750				46000 PACT		YACTE	OFF - 1 115075	
ADOT/OBY		AK =2.69			14258 AK2	.2307129		AD X 37.06787	
THETAD Y		THETAN 7 -64.7			07942 CENT		DELTA		
TEVENT	2879 • 900	PCMD =1 -16			43900 LEM		CSMMA		
ERRORX	•0000000	ERRORY -13 .:				/8CR -+6040000E		OCP 1587415	
WB8D/8CY	•1879843	THETAD X 102	3047	HETAD Y -55.	30518 THE	AD Z 44.27490	VGTI	X -52+07806	
VGTIG Y		VGTIG Z -6,39			8.852 X C		Y CG		
Z CG	•5032310			SLOSH AR -7.5		30790 • 81	IYY	79483.03	
IZZ	84564.21				•5652 IYZ	1515.858		G/S -1 -440787	
	-1 • 622634					CM/S2 3.483458	AYSC		
AZSCM/S2						00000000 TUBBS	AXSM	M/S2 •9350846	
ATSMM/SZ	1,575692	AZSMM/S2 2,9	21/20	RSMM/S2 3.4	22/20	*			

PROGRAM VERB 99 PROGRAM VERB 99			99999 R3 +99			+11 00000 +11 00000	
SDS REFERENCE	MATOLY	Demende	CE WITHTH		0.0		
41222304 ·79159081		41222304 •791	59081 - 4510			TUDE MATRIX	707
•0004209549491686			91686 = 8689				•78704596
							•56258821
91108286 358387.06	•20368291	91108285 358	38706 •2036	8291	78166676	•57003784	•25308704
REFSMMAT ER GIMBAL ANGL		CDU AGC SHAFT	SDS SHAFT		Les DR	LOS ALT	L6S CR
Y= +000 AIG= =56+00			10.99	R ERROR	601:75	-1175 • 09	-113-61
Z=000 AMG= 58.89	58 • 89 13	.62 AGC TRUN	SDS TRUN	V ERROR	1 + 16	-1.37	- • 29
X= .000 ABG= 103.52	103.52 13	• 74 • 01	140.55				
STATE VECT RX	RY RZ	RSS	vX	vY	VZ	RSS	TIME
SDS CM =2388867.2		3 • 1 6645357 • 9	-7229·19	-2409 • 14	1379 22	7743+86	2847.42
AGC CM -2387764.9			*7227 • 93	=2408±07	1378 • 52	7742.23	204/042
DELTA -1102.3		6.9 =266.3	-1,26	~1.07	•70	1.63	
52217	-002-6	-200*5	-1,420	-1.0/	*/0	1.00	
SDS LM -2389856.9	5398572 • 9 - 306851	6.3 6653705.6	-7222 39	#2416.73	1383 • 18	7740.59	2847.42
AGC LM =2389858.3	5398526+6 -306855	1 • 1 6653684 • 5	*7222 · 38	-2416.75	1383+23	7740.59	
DELTA 1.4	46 • 3	4.8 21.0	- • 01	• 05	-:06	01	
p8SITIBN LAT	LØNG AL	T APBGEE	PERIGEE	AZIMUTH	ELEVATION	RANGE R	ANGE RATE
SDS CM -27.62			258230+3	-173 - 88	75 • 45	8624.0	-9.28
SDS LM =27.62			272505+3	2,0.00	, , , , ,	002110	
FLAGWD 8 00000 FLAGWD 9		FLAGWD 3 00000 F	LAGWD 4 00000	FLAGWD'5 00200	FLAGWD 6 00	0000 FLAGWD 7	00100
RCSFLAGS 00001 RCSFLAGS		RSBB0+1 03434 0	ADRELSH 56016	CADR+1. 73174		6016 FAILREG	. 00000
FAILRG+1 00000 FAILRG+2				FLAG 10 00000		0000 BPTMBDES	
HOLDFLAG 77776 DAPDATR1		REDBCTR 00001 1	MBDE 30 36075	IMODE 33 56040	CHAN 11 00	0000 CHAN 12	00000
CHAN 13 00100 CHAN 14	00000 CHAN 30 37373	CHAN 31 37777 (HAN 32 77777	CHAN 33 47765			
CDUx 107.8857	CDUY -55.50293	CDUZ 44.85	718 CDUT	-19.76715	ADOT/	•1206995E=	02
AD0T/0BP .2156497E-01	ADST/88Y - 4846752E-C1	AK •5493	3165E-01 AK1	3735352	AK2	•1098633	04
THETAD X 108.0176	THETAD Y -55.56885	THETAD Z 44.42		2388.540	BEST I		
BEST J •1666667	MRKTIME1 404463.1			Y1 2367.206E			
STAR RS1 +8011438E+01	MRKTIME2 2388.540	STAR X2 1515		Y2 - 8804932	STAR Z		
STAR RS2 +8804932	HAP8 400616 • 0	HPER 26727	2.0 RSP=	RREC 506002 * 0	VGTIG >	x -37.72564	
VGTIG Y -10.34088	VGTIG Z -29:16908	AD0T/ . 1206		/0BP 2156497E		BY - : 4846752E-	01
AK +5493165E+01	AK13735352	AK2 .1098	3633 THET	AD X 108,0176	THETAD	Y -55,56885	* -
THETAD Z 44.42871	8GC +0000000	IGC +0000	0000 MGC	•7655360E	-01 TEVENT	2372 • 820	
LAUNCHAZ 147.5684	LEMMASS +COOCOO	CSMMASS 26520	0:00 ERR8	RX + 5493165E	-01 ERRORY	• 3735352	
ERRORZ1208496	WB8D/8CR +0000000	WB8D/8CP +0000	0000 WB8D	/8CY .0000000	THETAD	X 108 • 0176	
THETAD Y -55.56885	THETAD Z 44 * 42871	S/C MASS 1788			Y CG	•3071489	
Z_CG .5077438	JET FUEL 37,34412	SLOSH AR -7.886		31119 . 44	IYY	79900.74	
IZZ 84710 • 12	IXY 2036 • 133	IXZ 246 • 1		1424 • 454		/S 1363852	
WY DEG/S +3357175	WZ DEG/S 4196469E-01			M/S2 9327403E		S2 1515703E=	
AZSCM/S2 +4512131E-U2	XGYRBBUT .0000000	YGYRBBUT +0000		00000000 TUBB!	AXSMM/S	S2 •3760672E=	.02
AYSMM/S2 2899533E - 02	AZSMM/S2 *1057349L-02	ARSMM/S2 +486	+970E=02				

TAPE WEDB RUN 6 VERIFICATION C4.18A TES	RUN DATE 10/23/68 EDIT DATE 238CT68	SDS TIME 2849 AGC TIME 2779.60) ID 777 PAGE 25
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PROGRAM VERB 99 PROGRAM VERB 99	N8UN 99		99999 R3 +999 99999 R3 +999	FLASH 0	DSPTAB +11 00000 - DSPTAB +11 00000	
41222304 -79159081 -0004209549491686	86894023		59081 45106113 91686 86894023	4993 3573		*56042290
REFSMMAT ER GIMBAL ANGLE Y.# *000 AIG= =56.17 Z= -*000 AMG# 59.56 X* *000 AGG# 103.39	*56*17 *55 59*56 59	90 94		R ERROR 60	DR 10S ALT 95*66 **1177*21 1*16 **1*37	LOS CR *112.28 *:29
STATE VECT RX SDS CM *2403319.0 AGC CM *2402214.2 DELTA *1104.8	RY 5386181.7 -306171 5386786.1 -306209 -604.4 37	6.3 6645374.5		2423.78 138	VZ RSS 37.56 7743.85 36.87 7742.21 .70 1.63	TIME 2849.42
SDS LM *2404295*2. AGC LM *2404296*6 DELTA 1.4	5393678 • 4 -306577				7740.60 7740.61 06 7740.61	2849+42
P8SITI8N LAT SDS CM *27.59 SDS LM *27.59	Leng AL 63-12 27176 63-10 28008	4.7 272870.1	258247.9		/ATIBN RANGE 75.24 8605.5	RANGE RATE
FLAGWD 0 00000 FLAGWD 1 FLAGWD 8 00000 FLAGWD 9 RCSFLAGS 00001 RCSFLAGS FAILRG+1 00000 FAILRG+2 HeLDFLAG 77776 DAPDATR1 CHAN 13 00100 CHAN 14	00000 00001 RSBBQ 42106 00000 PIPA X 00025 11103 DAPDATR2 11111	RSBBQ+1 03434 C PIPA Y 77772 P	ADRFLSH 56016 CAD IPA Z 00035 FLA MeDE 30 36075 IMB	OR+1 73174 CAI AG 10 00000 FL	AGWD 6 00000 FLAGWD DR+2 56016 FAILRE AG 11 00000 8PTM8D AN 11 00000 CHAN 1	G 00000 ES 00120
CDUX 83.68286 AD8T/0BP .2156497E=01 THETAD X 108.0176 BEST J .166667 STAR RS1 .8011438E-01	CDUY *55.79956 AD8T/8BY *,4846752E*01 THETAD Y *55.56885 MRKTIME1 404463*1 MRKTIME2 2388.540	THETAD Z 44.42 STAR X1 .7653 STAR X21515	165E=01 AK1 871 TIG 723E=01 STAR Y1 672E=03 STAR Y2	-19*76715 3735352 2388*540 2367206E*01 8804932	AD8T/ +1206995 AK2 +1098633 BEST I +0000000 STAR Z1 +0000000 STAR Z2 +0000000	
STAR RS2	HAP8	HPER 26727 ADBT/ 1206 AK2 1098 IGC 0000 CSMMASS 26520 WBBD/BCP 0000	995E=02 AD8T/88F 633 THETAD X 000 MGC +00 ERR8RX	506002.0 2156497E-01 (108.0176 -7655360E-01 -5493165E-01 (10000000	THETAD Y -55.56885 TEVENT 2372.820	E=01
ENRORZ	WBBD/BLR - 00000000 THETAD Z 4+*42871 JET FUEL 37*34375 IXY 2036*133 WZ DEG/S -*2797646E-01 XGYRBBUT *6000000	S/C MASS 1788+ SLOSH AR -7.886 IXZ 246+1	571 X CG 368 IXX 853 IYZ 000 AXSCM/S2	8 • 466005 31119 • 44	Y CG *3071485 IYY 79900.74 WX DEG/S **1328882 AYSCM/S2 **1235881	E=02
AYSMM/S21431599E-02	AZSMM/S2 .2245503E-02				ANDITO DE TREBOODE	-

TAPE WEDB RUN 6 VERIFICATION C4.18A TEST RUN DATE 10/23/68 EDIT DATE 230CT68 SDS TIME 2851 AGC TIME 2781.59 ID 777 PAGE 26

PROGRAM	VERB VERB	NOUN	R1 -9999 R1	9 R2 -99999 R2	R3 +999 R3	FLASH O	DSPTAB +	11 00000 11 00000	
**************************************	5 = 49491686	*ATRIX	4122230 -0004209	5 49491686	45106113 86894023	3 we:	48937154 == 35419464 ==	36000657 75025749	**79429936 *55826521
REFSMMAT ER Y= +000 Z= +000 X= +000	D AIG= =56+35 D AMG= 60+25	*56.35 60.25	*56÷06 59•96	AGC TRUN SI			Les DR 609.58 1:17	LOS ALT -1179.30	Les CR ~110*98 **29
STATE VECT SDS CM AGC .CM DELTA	-2417757 • 9 •2416650 • 5 -1107 • 3	5381319 • 5 = 3	3058932.8 66	45391 • 1 - 7:	216 • 13 •	vY *2438*40 *2437*33 *1*07	1395.90 1395.20	RSS 7743 · 83 7742 · 20 1 · 63	TIME 2851:42
SDS LM AGC LM DELTA	=2418720 •5 -2418721 •9 1 • 4					-2445.92 -2445.94 -02	1399.82 1399.88 ~•06	7740 • 62 7740 • 63 =• 01	2851.42
POSITION SDS CM SDS LM	LAT +27.56 +27.56	LONG 63.26 63.24	271773.0 2	72867.8 258	IGEE 265.5 500.3	AZIMUTH =174.05	ELEVATION 75.03	RANGE 8587•1	RANGE RATE +9+18
FLAGWD 8 OF RCSFLAGS OF FAILRG+1 OF HOLDFLAG 7 CHAN 13 OF	0001 RCSFLAGS 0000 FAILRG+2 7776 DAPDATR1	00000 00001 RSBBQ 4	+2106 RSBBQ+1 00025 PIPA Y 11111 REDBCTR 37373 CHAN 31	77772 PIPA Z 00001 IMBDE 3 37777 CHAN 32	H 56016 CAI 00075 FL/ 0 36075 1M6 77777 CH/	OR+1 73174 AG 10 00000 BDE 33 26040	CADR+2 560 FLAG 11 000	016 FAILRE 000 SPTMSC 000 CHAN 1	G 00000 DES 00120 DES 00000
ADOT/OBP THETAD X BEST J STAR RS1 STAR RS2 VGTIG Y - AK	*2156497E=01 108*0176 *1666667 *8011438E=01 *8804932	AD01/08Y ** ** ** ** ** ** ** ** ** ** ** **	52E+01 AK 85 THETAE 11 STAR.) 40 STAR.) 40 HPER 08 ADBT/ 52 AK2	.5493165E=0 2 44.42871 1 .7653723E=0 2 -1515672E=0 267272-0 1206995E=0	1 AK1 TIG 1 STAR Y1 3 STAR Y2 RSP-RRE		AK2 BEST I O1 STAR Z1 STAR Z2 VGTIG X AD01Z08 THETAD	*1098633 *0000000 *0000000	8 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
LAUNCHAZ ERRORZ = THETAD Y = Z CG IZZ WY DEG/S AZSCM/S2 =	147.5684 •1208496 55.56885 •5077438 84710•12	LEMMASS #00000 WB8D/6CR #00000 THETAD Z #4.428 JET FUEL 37,343 IXY 2036:1 WZ DEG/S -*41964 ***CGYR88UT #00000 AZSMM/S2 ***22091	00 CSMMAS 00 WB0D/8 71 S/C M/ 51 SL0SH 33 IXZ 69E=01 C0NFIG	SS 26520 * 00 9CP * 0000000 ASS 1788 * 571 AR * 7 * 886368 246 * 1853	ERRORX WBOD/OC X CG 1XX IYZ AXSCM/S ZGYROOU	**5493165E** Y **000000 8 **466005 31119.44 1424 **454 2 **0000000	O1 ERRORY THETAD Y CG IYY WX DEG/ AYSCM/S	+3735352	3 3 3 3 3 3 3 3

TAPE WEDB RUN	6 VERIFICATION C4:18A	TEST RUN DATE	10/23/68 EDIT	DATE 238CT68	SDS TIME	2853 AGC TIME	2783 ¢58 1D 777	PAGE 27

PREGRAM VERS	NOUN	R1 R2	R3	FLASH-0-	-DSPTAB +1-1 00000	
PROGRAM VERB 99	NBUN 99	R1 *99999 R2 +9	9 R3	FLASH 0	DSPTAB +11 00000	
SDS REFERENCE		AGC REFERENC	E MATRIX		S/C ATTITUDE MATE	
**************************************	** 45106113 ** 86894023	**41222304 *7915 **00042095 **4949			913766 = 36583805 388801 = 75337338	79786611 .55615330
*00042095 -*49491686 -*91108286 -*35838706		**91108285 =*3583			455279 454643512	•2326a117
				,		
REFSMMAT ER GIMBAL ANGLE			SDS SHAFT		DR LOS ALT	LOS CR
Y= 000 AIG= 56.53 Z* =:000 AMG= 60.95	~56*53 #56 60*95 60	• 25 = • 04 • 63 AGC TRUN	10:99 SDS TRUN	R ERROR	513.51 =1181.36 1.17 =1.36	=109.73 = 28
X= .000 ARG= 103.16	103.16 103		126 · 49	V ERROR	141/ =1430	
V- 1000 VGG 70-110	20-418					
STATE VECT RX	RY RZ	RSS	VX	VY	yz RSS	TIME
SDS CM +2432183.5 AGC CM +2431073.7	5376428 • 1 • 305613 5377036 • 8 • 305651				+04+23 7743+82 +n3+53 7742+19	2853.42
AGC CM -2431073.7 DELTA -1109.8		1 • 1 = 261 • 6	~1.25	*1.07	103.33	
220	304.7					
SDS LM -2433132.7	5383941 *1 *306014				+08-13 7740-63	2853.42
AGC LM -2433134+1 DELTA 1+4	5383894,7 ~306017 46,4 ~3	6.8 6653656.6 4.4 21.2	-7202-80 ·	•2460•52 1·	408 × 19 7740 × 64 ~ × 06 ~ × 01	
DELTA 1.4	40.4 3	4.4 (1.0)	4+01	* UZ	**08	
POSITION LAT	LONG AL		PERIGEE		EVATION RANGE	RANGE RATE
SDS CM -27.54	63-40 27178		258283 • 3	-174-13	74 • 82 8568 • 8	#9:13
SDS LM =27.54	63.38 28005	2*0 280787*5	272497 • 8			
FLAGWD 0 00000 FLAGWD 1	00000 FLAGWD 2 00000	FLAGWD 3 00000 FL	AGWD 4 00000 FLA	AGWD 5 40200 F	LAGWD 6 00000 FLAGW	7 00100
FLAGWD 8 00000 FLAGWD 9			DDFI OU FORM	OR+1 73174 C	ADR+2 56016 FAILR	FO. 00000
RCSFLAGS 00001 RCSFLAGS FAILRG+1 00000 FAILRG+2						EG 00000
HOLDFLAG 77776 DAPDATR1			MEDE 30 36075 IME			12 00000
CHAN 13 00100 CHAN 14	00000 CHAN 30 37373	CHAN 31 37777 CH	HAN 32 77777 CH	AN 33 47765		
	5.4.5.4.0	CD:::=	297 CDUT	-19.76715	AD81/120699	Er02
CDUX 103:3044 AD0T/0BP :2156497E=01	CDUY -56:15112 ADBT/8BY -:4846752E=01	CDUZ 60 292 AK 54931	165E=01 AK1	# 4 37 35 35 2	AK2 +109863	
THETAD X 108.0176	THETAD Y -55.56885	THETAD Z 44.428	371 TIG	2388.540	BEST I .000000	
BEST J 1666667	MRKTIME1 404463.1.			2367206E-01		
STAR RS1 +8011438E=01	MRKTIME2 2388 • 540 HAP8 400616 • 0	STAR X2 =-15156 HPER 267278		8804932 C 506002.0	STAR Z2 *000000 VGTIG X *37 • 7256	
STAR RS2 +8804932 VGTIG Y =10+34088	HAP8 400616+0 VGTIG Z -29+16908		995E=n2 AD8T/8B		AD8T/8BY = 484675	
AK .5493165E-01	AK13735352	AK2 .10986			THETAD Y -55.5688	5
THETAD Z 44.42871	egc •0000000	IGC .00000		.7655360E=01		
LAUNCHAZ 147.5684	LEMMASS +0000000	CSMMASS 26520 WB8D/8CP #00000		5493165E-01 Y -0000000	THETAD X 108.017	
ERRORZ = 1208496 THETAD Y = 55.56885	WB8D/8CR +0000000 THETAD Z 44+42871	S/C MASS 1788 •		8 • 466005	Y CG +307148	
Z CG .5077438	JET FUEL 37.34326	SLOSH AR .7.886;	368 IXX	31119.44	IYY 79900.7	4
IZZ 84710 - 12	IXY 2036:133	IXZ 246:11		1424.454	WX DEG/S * 150373	
WY DEG/S •3497057	WZ DEG/S 2797646E-01			2 9327403E=03	AYSCM/S2 151570 AXSMM/S2 - 179858	
AZSCM/S2 .1504044E=02 . AYSMM/S2 **1366196E=02	AZSMM/S25631924E-03	YGYR00UT +00000	784E=02	T +0000000	_VYDULL/25 .1/2029	3E = UE
Wintuinos 4.1300 Tage OS	WEGING OF - 430212545-00	MAINING AESEL				

TAPE WEDB RUN 6 VERIFICATION C4-18A	TEST RUN DATE 10/23/68 EDIT	DATE 230CT68 SDS TIME	2855 AGC TIME	2785.57 ID 777 PAGE 28
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PROGRAM	VERB 99	NBUN	R1	R2	R3 —	- FLASH-0	-DSPT	AB +11 00000	
PROGRAM	VERB 21	NOUN	R1	R2	. R3	FLASH O		AB +11 00000	
	SDS REFERENCE	MATRIX			ICE MATRIX		S/C-A	TTITUDE - MATRI	
41222			**412		59081 4510		.46851587	~ • 37180734	- *80140686
• 00048					91686 - 8689		• 34733224	75655937	*55405593
-+91108	8286 • 35838706	*20368291	911	08285 -*358	338706 *2036	8291 **	*81231356	•53793764	+22531915
DEFONMAT	E ED TEMPAL INC.		0 . 0011						
	T ER GIMBAL ANGL		AGC CDU -56.46	AGC SHAFT	SDS SHAFT	en em en en be en	Les DR	LOS ALT	LOS CR
	*000 AIG= =56*74 *000 AMG= 61*67		61:34	AGC TRUN	10.99 SDS TRUN	R ERROR	617+45		108+51
	*000 ABG= 103.05		103.14	AGL IRUN	123.97	A FKKOK	1 • 17	≈1 · 35	# # 28
^~	*000 AGG= 103*05	103.02	103:14	* Q.T	123.97				
STATE VE	ECT RX	RY	RZ	RSS	VX	VY	v 7	RSS	TIME
SDS CM	=2446596 • n		-3053315.9	6645424 • 2	-7202·92	-2467.61	VZ 1412∙55	7743 • 80	2855:42
AGC CM	=2445483.7		-3053698 . 4	6645684 • 3	-7201+68	-2466+54	1411+86	7742+18-	2-00112
DELTA	-1112.3		382.5	-260+1	-1.24	-1.07	•70	1.63	
SDS LM	-2447531.7		-3057317.8	6653668 * 5	-7196:21	≈2475×06	1416.43	7740 • 65	2855.42
AGC LM			-3057352 • 2	6653647.2	-7196.20	*2475 · 08	1416 • 49	7740 • 66	
DELTA	1 + 4	46.5	34.3	21+3	01	* 02	≈ ± 06	~ • 01	
POSITION	N LAT	Leng	ALT	APOGEE	PERIGEE	AZIMUTH	ELEVATION	RANGE	RANGE RATE
SDS CM			271789.4	272863 • 2	258301 * 1	+174+22	74.61	8550+6	*9 • 08
SDS LM			280034+4	280805 • 6	272495 - 3	gir i v tieta	7.4401	222040	#3*00
FLAGWD (0 00000 FLAGWD 1	00000 FLAGWD	2 00000 FLAG	MD 3 00000 F	FLAGWD 4 00000	FLAGWD 5 40200	FLAGWD 6	20000 FLAGW	7 00100
	8 00000. FLAGWD 9						A-14		
RCSFLAGS FAILRG+:					CADRFLSH 56016	CADR+1 73174		56016 FAILR	
HOLDFLAG			00025 PIPA		PIPA Z 00166	FLAG 10 00000		00000 BPTM81	DES 00120
		11103 DAPDATE				IMBDE 33 26040		01000 CHAN	15 00000
CHAN 13	00100 CHAN 14	00000 CHAN 30	37373 CHAN	31 3////	CHAN 32 77777	CHAN 33 47765			
CDUx	103:1946	CDUV -56+3	4888 CD	UZ 60.95	96n9 CDUT	-19.76715	ADGT	. 120699	SE=02
ADOT/OB	P •2156497E=01	ADST/88Y 484			3165E-01 AK1	+ 3735352	AK2	•109863	
THETAD :	X 108.0176	THETAD Y -55 . 5	6885 TH	ETAD Z 44.4	2871 TIG	2388.540	BEST	1 *000000	0
BEST J		MRKTIME1 4044		AR X1. +765	3723E=01 STAF	R Y1 - 2367206E	CO1 STAR		
STAR RS		MRKTIME2 2388	8 • 540 ST			R Y2 - 8804932	STAR		
STAR RS:				ER 2672	72.0 RSP.	-RREC 506002 . 0	VGTI	G X +37.7256	4
VGTIG Y		VGTIG Z -29.1		10TZ	0000 AD81	1/88P .0000000	ADOT	ZBBY .000000	0
AK	.5493165E=01	AK1373				TAD X 108.0176		AD Y -55,5688	
THETAD :			00000 IG			•7655360E	-01 TEVE	NT 2372+82	0
	Z 147.5684			MMASS 2652		RX	ERRO		
ERRORZ	•0000000			10D/0CP .000		00000000 • 0000000		AD X 108 • 017	
	Y ~55.56885	THETAD Z 44 .4		'C MASS 1788			Y CG		
Z CG	.5077438	JET FUEL 37.3		OSH AR -7.88			IXA.	79900.7	
IZZ	84710+12		133 IX			1424,454		EG/S 153870	
	S •3601969	WZ DEG/S -+ 345		NFIG 1.00		CM/S2 .0000000		M/S2 160897	
AZSCM/S		XGYRBBUT .000		YROOUT .000		-0000000 TUBBS	AXSM	M/S2 .212196	4E=02
ATOMMIZO	25304909E-03	AZSMM/S2 -+232	code OF = 013 VE	RSMM/S2 -219	9597E-02				

TAPE WEDB RUN 6 VERIFICA	ATION C4.18A TEST RUN D	PATE 10/23/68 EDIT DATE	238CT68 SDS TIME 285	57 AGC TIME 27	787.56 ID 777 PAGE 29
PROGRAM VERB 21 PROGRAM VERB 21	NOUN 1	R1 R2	R3 FLASH :		
.SDS REFERENCE N ***41222304	45106113 86894023	AGC REFERENCE MA	45106113 86894023	**34355259 ***	UDE MATRIX 3778336080486321 75977397 -55200982 52913570 -21790051
REFSMMATER GIMBAL ANGLE Y. ** **000 AIG: **56*96 Z** **000 AMG** 62*40 X** **000 ABG** 102*94	=56.96 =56. 62.40 62.	67 == 04 06 AGC TRUN S	S SHAFT 10+99 R ERROR DS TRUN V ERROR 30.00		LOS ALT LOS CR -1185.43 -107.32 -1.3528
STATE VECT RX SDS CM +2460995.2 AGC CM +2459880.4 DELTA *1114.8	5367170+6 =3050866	2.5 6645440.7 -7 5.4 6645699.2 -7	VX 196.26	1420*87 1420*17 *70	RSS TIME 7743•79 2857•42 7742•16 1•62
SDS LM =2461917.5 AGC LM =2461918.8 DELTA 1.4	5373994+4 -3054510		189.56 =2489.61 189.56 =2489.63 =:01 :02	1424.72 1424.78 06	7740.66 2857.42 7740.67 «.01
POSITION LAT SDS CM -27.48 SDS LM -27.48		7.5 272860.9 258	IGEE AZIMUTH 319.0 -174.29 492.8	ELEVATION 74.40	RANGE RANGE RATE 8532.4 #9:04
FLAGWD 0 00000 FLAGWD 1 FLAGWD 8 00000 FLAGWD 9 RCSFLAGS 20005 RCSFLAGS FAILRG+1 00000 FAILRG+2 HGLDFLAG 00001 DAPDARR1 CHAN 13 00100 CHAN 14	00000 20005 RSBBQ 42106 00000 PIPA X 00025 11103 DAPDATR2 11111	PIPA Y 77771 PIPA Z REDOCTR 00001 IMBDE 3	4 00000 FLAGWD 5 4020 H 56016 CADR+1 7017 00220 FLAG 10 0000 0 36021 IMBDE 33 2600 77777 CHAN 33 6776	4 CADR+2 560 0 FLAG 11 000 0 CHAN 11 010	16 FAILREG 00000 00 0PTM0DES 00120
CDUX 103.0957 AD87/8BP .0000000 THETAD X 108.0176 BEST J .1666667 STAR RS1 .80014938=01 STAR RS2 .8804932 VGIIG Y -10.34088 AK .5493165E-01 THETAD Z 44.42871 LAUNCHAZ 147.5684 ER8872 .000000 THETAD Y -55.56885 Z CG .5077438 IZZ .84710.12 WY DEG/S .3671910 AZSCM/S2 .1504044E-02	CDUY -56.54663 ADBT/BBY *000000 THETAD Y -55.56885 MRKTIME1 *04463.1 MRKTIME2 2388.5540 HAPP *000000 VGTIG Z -29.16308 AK1 *3735352 9GC *0000000 LEMMASS *0000000 UEMMASS *0000000 THETAD Z *44.42871 JET FUEL 37.34302 IXY 2036.133 WZ DEG/S *1748529E*01 *\$67888UT *0000000	CDUZ 61.67725 AK 5493165E-0 THETAD Z 44.42871 STAR X1 17653723E-0 STAR X2 11515672E-0 HPER 267272-0 AD0T/ 1000000 AK2 1098633 IGC 0000000 CSMMASS 26520.00 WB8D/0CP 0000000 S/C MASS 1788.571 SLUSH AR 7.886368 IXZ 246.1853 C0NFIG 1.0000000 YGR080HT 00000000	TIG 2388.540 1 STAR Y12367206	AK2 BEST I STAR Z1 STAR Z2 VGTIG X AD01/8BY THETAD Y TEVENT ERRORY THETAD X Y CG IYY WX DEG/S ERO3 AYSCM/S2	*1098633 *0000000 *0000000 *0000000 *0000000 -37.72564 *0000000 -35.56885 2372.820 *0000000 (108.0176 *3071489

TAPE WEDB RUN & VERIFICA	ATION C4.18A TEST RUN DATE 10	0/23/68 EDIT DATE 230CT68	SDS TIME 2859 AGC TIM	E 2789.55 ID 777 PAGE 30
PROGRAM VERB 21 PROGRAM VERB 21	NBUN R1	R2 R3 7		TAB +11 00000 TAB +11 00000
*00042095 - * 49491686			402333936405	ATTITUDE MATRIX 3811769580656481 76270223 -55056024 -52248335 -21526098
REFSMMAT ER GIMBAL ANGLE Y= *000 AIG= *57*11 Z= *000 AMG= 62*79 X= *000 AGG= 102*77	-57·11 -56·88 -62·71	AGC SHAFT SDS SHAFT 10*99 AGC TRUN SDS TRUN 138*94	R ERROR 625.36 V ERROR 1.18	-1187·44 - *106·17
STATE VECT RX SDS CM -2475381.0 AGC CM -2474263.8 DELTA -1117.3	5362193.8 -3048017.8	RSS 6645457*2 -7189*55 6645714*1 -7188*31 -256*9 -1*24	VY VZ 2496.76 1429.17 1428.48 1428.48 1428.48	7743•77 2859•42 7742•15
*2476289.9 AGC LM *2476291.3 DELTA 1.3	5369000 • 6 -3051653 • 0	6653649.9 -7182.88 6653628.5 -7182.88 21.4 -01	=2504.15 1433.01 =2504.17 1433.07 .0206	7740.69
P8SITION LAT SDS CM =27.45 SDS LM =27.45		AP8GEE PERIGEE 272858 • 6 258337 • 0 280842 • 0 272490 • 2	AZIMUTH ELEVATIO	
FLAGWD 0 00000 FLAGWD 1 FLAGWD 8 00000 FLAGWD 9 RCSFLAGS 00011 RCSFLAGS FAILRG+1 00000 FAILRG+2 HGLDFLAG 00000 DAPDATR1 CHAN 13 00100 CHAN 14	00000 00011 RSBBQ 42106 RSBBQ 00000 PIPA X 00025 PIPA 11103 DAPDATR2 11111 REDBC		CADR+1 73174 CADR+2 FLAG 10 00000 FLAG 11 IMODE 33 26000 CHAN 11	56016 FAILREG 00000 00000 BPTMBDES 00120
	MRKTIME1 404463.1 STAF	Z 62.42432 CDUT .0000000 AK1 TAD Z 44.42871 TIG R X1 .7653723E-01 STAR	*0000000 AKZ 2388*540 BES	

STAR X2 -. 1515672E-03

SLUSH AR -7.886368

267272 0

- 1378790

.0000000

26520:00

.0000000

246 . 1853

1 . 0000000

.6535389E-02

1788 + 571

-.1098633E-01

HPER

ADOT/

CSMMASS.

WB8D/8CP

S/C MASS

AK2

IGC

IXZ

CONFIG

YGYROBUT

ARSMM/S2

STAR RS1

STAR RS2

AK

ERRORZ

WY DEG/S

AZSCM/S2

Z CG

.8011438E=01

.4394532E-01

*1098633E = 01

.8742643E=01

*6295997E=02

.5077438

84710 - 12

*88n4932

VGTIG Y -10.34088

THETAD Z 62+60010

LAUNCHAZ 147.5684

THETAD Y -55.56885

AYSMM/S2 - . 35c6327E-02

MRKTIME?

VGTIG Z

LEMMASS

WB8D/8CR

THETAD Z

JET FUEL

WZ DEG/S

XGYROOUT

AZSMM/S2

HAPO

AK1

OGC

IXY

2388.540

400616+0

-.9887696E+01

-29 - 16908

*0000000

· C000000

44 - 42871

37.54919

2036:133

.3497057E-02

-2492581E-02

STAR Z2

VGTIG X

TEVENT

ERRORY

Y CG

LYY

STAR Y2 - 8804932

WB8D/8CY .0000000

ZGYROOUT .00C0000

506002 • 0

102,9639

- 1428223

8 * 466005

31119.44

1424.454

AXSCM/S2 **9327403E*03

*7856861E=01

.7655360E-01

RSP-RREC

ADOT/OBP

THETAD X

ERRORX.

MGC

X CG

IXX

*00000000

2372 - 820

+1428223

.3071489

79900.74

-37,72564

AD0T/08Y . 2684221E=01

THETAD Y -56,82129

THETAD X 108 * 0176

WX nEG/S -- 1538705

AYSCM/S2 -- 1422429E-02

AXSMM/S2 +4919758F-02

TAPE WEDB RUN 6 VERIFICA	ATION C4.18A TEST RUN DA	TE 10/23/68 EDIT D	ATE 238CT68 SDS	TIME 2861 AGC TI	ME 2791.54 ID	777 PAGE 31
PREGRAM VERB 21	Neur	R2	-R377	FLASH-1- DS	PTAB +11 00000	
PROGRAM VERB 21		R1 R2	R3 77		PTAB +11 00000	
SDS REFERENCE	MATRIX ** 45106113 **	AGE - REFERENCE	MATRIX:	S/C	ATTITUDE MATRI	
***41222304 **79159081 **00042095 ***49491686	**45106113 ***	41222304 •/9159	081 45106113			- 080722547
		00042095 = 49491	686 = 86894023 706 = 20368291			,55016923
>1108280+33838700	*20308231	12T100500 ##35030	100 #80300831	**05/1/26	1 +51288472	*21377873
REFSMMAT ER GIMBAL ANGLE	ES SDS CDU . AGC CE	U AGC, SHAFT	SDS SHAFT	Les DR	LOS ALT	LOS CR
Y= *000 AIG= =57*21				R ERROR 629.2		*105*05
Z= +.000 AMG= 62.97	62.97 62.9		SDS TRUN	V ERROR 1 . 1	8 -1.34	w+27
X=' +000 AGG* 102+74	102.74 102.7	77 • 01	153.48			
ATITE OFFI				vY vz		
STATE VECT RX SDS CM =2489753.4	RY RZ 5356570+6 ~3044765	RSS 8 6645473•6	-7182+81 =2		RSS	TIME
AGC CM +2488633*6	5357187+8 -3045152			2511 • 32 1437 • 4 2510 • 25 1436 • 7		2861.42
DELTA =1119.7	=617·2 386		=1.23	~1 · 07 • 7		
111547	017-2	-20040	-1.50	2.01	1,402	
SDS LM2490649.0	5364024.3 -3048744	6 6653640.6	+7176×16 = =2	2518 - 67	9 7740.69	2861 * 42
AGC LM -2490650+3			-7176+15 +2	2518 • 69 1441 • 3		
DELTA 1.3	46 • 6 34	0 21.5	- * 01	•02 -•(16 .01	
position LAT	LONG ALT	APOGEE	PERIGEE	AZIMUTH ELEVATI	ON RANGE	RANGE RATE
SDS CM. #27:42	63.95 271813			-174.45 73.9		=8.94
SDS_LM =27.43	63.93 279981	1 280860.3	272487 • 6			
er and e			-10-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1	-11 1-11-	and a second	
FLAGWD 0 00000 FLAGWD 1		-LAGWD 3 00000 FLA	GWD 4 00000 FLA	GWD 5 40200 FLAGW	6 20000 FLAGWD	7 00100
FLAGWD 8 00000 FLAGWD 9 RCSFLAGS 00011 RCSFLAGS		RSBBQ+1 n3434 CAD	RFLSH 56016 CADI	R+1 73174 CADR+2	56016 FAILRE	0.0000
FAILRG+1 00000 FAILRG+2				G 10 00000 FLAG		G 00000 ES 00120
HOLDFLAG 00000 DAPDATR1		REDECTR 00001 IMB				2 00040
CHAN 13 00100 CHAN 14		CHAN 31 37777 CHA				
CDUX 102.8101	CDUY -56.90918	CDUZ 6.2 • 7978			OT/ ==1401454	
AD8T/8BP +8170680E-01	ADST/8BY -2509878E-01	AK •208740			22197266	
THETAD X 102.9639 BEST J .1666667	THETAD Y -56.82129 MRKTIME: 404463.1	THETAD Z 62.6001 STAR X1 .765372			ST I •0000000	
STAR RS1 •8011438E=01	MRKTIME2 2388:540	STAR X2 151567			AR Z1 +0000000	
STAR RS2 +8804932	HAP8 400616*0	HPER 267272*			TIG X =37 + 72564	
VGTIG Y =10.34088	VGTIG Z -29-16908	ADBT/ 311605			OT/88Y *2178625	
AK •3076172	AK12746582	AK2329589			ETAD Y -56.82129	
THETAD Z 62.60010	986 •0000000	IGC +000000			VENT 2372.820	
LAUNCHAZ 147.5684	LEMMASS .0000000	CSMMASS 26520 • 0			RERY -3186035	
ERRORZ .4394532E-01	WB8D/8CR .0000000	WB8D/8CP .000000			HETAD X 108 . 0176	
THETAD Y =55.56885	THETAD Z 44.42871 JET FUEL 37.58142	S/C MASS 1788+57			CG •3071489 (Y 79900.74	
Z CG *5077438 IZZ 84710*12	IXY 2036+133	SLOSH AR -7.88636 IXZ 246.185			(Y 79900.74 (DEG/S **2797646	
WY DEG/S *9791760E=01	WZ DEG/S +0000000	CONFIG 1:00000			SCM/S2 1142607	
AZSCM/S2 06389271E=02	XGYR88UT *0000000	YGYRBBUT *000000			(SMM/S2 +4781685	
AYSMM/S2 = .3564463E=02	AZSMM/S2 +2768727E+02	ARSMM/S2 +657539		-000000U	some your cases and	Lu ' Ld Sie- ~
	C					

TAPE WEDB RUN 6 VERIFICATION C4-18A TES	RUN DATE 10/23/68 EDIT DATE 230CT68	SDS TIME 2863 AGC TIME 2793.53 ID 777 PAGE 32
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PROGRAM VERB 21 PROGRAM VERB 21		R1 R2	R377	FLASH 1	- DSPTAB	+11 00000	
PROGRAM VERB 21	NOUN	R1 R2	R3 77	FLASH 1	DSPTAB	+11 00000	
SDS REFERENCE	MATRIX	AGC REFERE	ENCE MATRIX			ITUDE MATRIX	
41222304 -79159081	45106113						- 080731034
•0004209549491686			949168686894		33659363	76420069	«55018330
91108286 358387 ₀ 6	20368291	==91108285 ===35	838706 +20368	1291	·82808757 ···	•51838398	*21342206
REFSMMAT ER GIMBAL ANGLI	ES SDS CDU AGC	CDU AGC SHAFT	SDS SHAFT		Las DR	LOS ALT	LOS CR
Y= *000 AIG= =57.28		• 05 = 04				÷1191 • 38	*103 CK
Z=000 AMG= 63.03		. 02 AGC TRUN	SDS TRUN	V ERROR	1.18	-1.33	27
X= •000 A8G= 102•74	102+74 102	• 79 • 01	146.45		4.00		
STATE VECT RX	RY RZ	RSS	VX	vY	117	RSS	TIME
SDS CM -2504112.2		2.6 6645490.0	-7176·03	-2525+86	VZ 1445∗76	7743.74	2863.42
AGC CM -2502990.0	5352152 8 = 304227			+2524.79	1445.07		2003-12
DELTA =1122.2	-619.4 38	8 • 1 -253 • 7	-1.23	-1-07	,70	1.62	
SDS LM =2504994 • 6	5358972.4 +304585	3.86653631.42	-7169·4n	*2533*18	1449.56	7740.74	2863.42
AGC LM -2504995.9			-7169·39	≈2533×20	1449.62	7740.72	E003 * 4 E
DELTA 1.3		3.9 21.5	= • 01	• 02	= • 06	=+01	
					- ,		
POSITION LAT		T APOGEE	PERIGEE	AZIMUTH	ELEVATION	RANGE	RANGE RATE
SDS CM =27.40 SDS LM +27.40				-174.52	73.77	8478.7	~8 · 8 9
SDS LM +27:40	64.407. 27996	3.3 280878.7.	272485.0		- *		
FLAGND 0 00000 FLAGND 1	00000 FLAGWD 2 00000	FLAGWD 3 00000	FLAGWD 4 00000	FLAGWD 5 40200	FLAGWD 6 2	OOGO FLAGWD	7 00100
- FLAGWD 8.00000 FLAGWD 9	.00000						
RCSFLAGS 00011 RCSFLAGS		RSBBQ+1 03434		CADR+1 73174		6016 FAILREG	00000
FAILRG+1 00000 FAILRG+2		PIPA Y 77771	PIPA Z 00323	FLAG 10 00000	FLAG 11 0	0000 BPTMBDE	S 00120
HOLDFLAG 00000 DAPDATR1	11103 DAPDATR2 11111	REDBCTR 00001				1040 CHAN 12	
CHAN 13 00100 CHAN 14	00000 CHAN 30 37373	CHAN 31 37777	CHAN 32 77777	CHAN 33 67765			
CDUX 102 • 7771	CDUY -57:00806	CDUZ 62.5	98462 CDUT.	-19.76715	ADOT	**34124418	-01.
AD0T/08P •1852736E=C1	AD0T/08Y +1951978E-01		05762 AK1	3625488	AK2	= . 43945329	*01
THETAD X 102.9639	THETAD Y -56.82129	THETAD Z 62.0		2388 • 540		*0000000	
BEST J .1666667	MRKTIME1 404463.1	STAR X1 .765		Y1 - 2367206E		1 .0000000	
STAR RS1 •8011438E=01 STAR RS2 •8804932	MRKTIMEP 2388.540 HAP8 400616.0	STAR X2 =-15		Y2 8804932	STAR Z		
VGTIG Y =10.34088	HAP8 400616.0 VGTIG Z -29.16908			RREC 506002.0	VGTIG	X =37.72564 BY :17776358	
AK 3735352	AK13955078			AD X 102.9639		Y =56.82129	-01
THETAD 7 62.60010	8GC •0000000		00000 MGC	•7655360E			
LAUNCHAZ 147.5684	LEMMASS ±0000000			Rx == *3955078	ERRARY		
ERRORZ •6591797E-01	WB8D/8CR +0000000	WB8D/8CP .000		OCY .0000000		X 108 • 0176	
THETAD Y -55 +56885	THETAD Z 44.42871	S/C MASS 178		8 • 466005	Y CG		
Z CG .5077438	JET FUEL 37,62671	SLOSH AR =7.8			IYY.		
IZZ 84710+12	IXY 2036+133		•1853 IYZ			/\$31473526	
WY DEG/S *4196469E=01 AZSCM/S2 *6016175E=02	WZ DEG/S -6994114E-02			M/S2 - 9327403E		S2 11426078	
AYSMM/S2 == 3393689E=02	XGYR66UT +0000000 AZSMM/82 +2547083E=02	YGYRBBUT :00		0000000 TUBE	AXSMM/	\$2 *4538241	*02
V:018/35 ==3333003E=05	vēaudvaS ∗Sa4v0eañ∗0s	ARSMM/S2 .62	152515-05				

TAPE WEDB RU	IN 6 VERIFICA	TION C4.18A TES	T RUN DATE	10/23/68 EDI	T DATE 230CT68	SDS TIME 28	65 AGC TIME	2795.52 ID	777 PAGE 33
PREGRAM PREGRAM	VERB 21 VERB 21	NOUN	R1 R1	R2	R3 7			3 +11 00000 3 +11 00000	
SDS 41222304 -00042095 91108286	REFERENCE 79159081 +•49491686 -•35838706	ATRIX 451G6113 86894023 -20368291	- 0412 • 000 - 0911	223 ₀ 4 • 79 42 ₀ 95 • • 49	NCE MATRIX 159081 - 4510 491686 - 8689 838706 - 2036	6113 4023	**************************************	ITUDE MATRI 38465858 76437545 -51746346	X 80730271 55039406 21290827
REFSMMAT ER Ys *000 Z* **000 X* *000	GIMBAL ANGLE AIG= =57:36 AMG= 63:09 ABG= 102:78	SDS CDU =57*36 63*09 102*78	AGC CDU. -57.13 63.07 102.79	AGC SHAFT ## 04 AGC TRUN +01	10.99	R ERROR V ERROR	Les DR . 637:24 1:18	LOS ALT =1193.32 =1:33	LOS CR 102+91 27
STATE VECT SDS CM AGC CM DELTA	RX -2518457.5 -2517332.8 -1124.6	RY 5346467•2 5347088•7 •621•5	RZ -3038982+8 -3039372+2 389+4	RSS 6645506+4 6645758+4 -252+0	-7169*20 -7167*98	VY *2540*39 *2539*32 -1*07	VZ 1454+05 1453+35	RSS 7743•73 7742•11 1•62	TIME 2865.42
SDS LM AGC LM DELTA	*2519326*6 *2519327*9 1*3	5353891 • 6 5353844 • 9 46 • 6	-3042946+4 -3042980+1 33+7	6653621 *9 6653600 *3 21 *6	-7162*60 -7162*60	*2547*68 *2547*69 *02	1457+82 1457+88 =+06	7740.72 7740.73 *:01	2865.42
POSITION SDS CM SDS LM	LAT *27*37 *27*37	LONG 64.23 64.21	ALT 271829•1 279945•3	AP8GEE 272851 • 6 280897 • 3	PERIGEE 258391,4 272482.4	AZIMUTH =174.59	ELEVATION 73.56	RANGE 8460.9	RANGE RATE =8.84
FLAGWD 0 000 FLAGWD 8 000 RCSFLAGS 000 FAILRG+1 000 HBLDFLAG 000 CHAN 13 000	DOO FLAGND 9 DIO RCSFLAGS DOO FAILRG+2 DOO DAPDAIR1	00000 00010 RSBBQ 00000 PIPA X 11103 DAPDATR	42106 RSBB 00026 PIPA 2 11111 REDB	9+1 03434 Y 77771 CTR 00001	FLAGWD 4 00000 CADRFLSH 56016 PIPA Z 00345 IMEDE 30 36001 CHAN 32 77777	CADR+1 7317 FLAG 10 0000 IMBDE 33 2600	74 CADR+2 5 00 FLAG 11 0	36016 FAILRE	
 ADOT/OBP THETAD X 10 BEST J : STAR RS1 : STAR RS2 : VGTIG Y -1		CDUY -57.0 AD8T/8BY 160 THETAD Y -56.8 MRKTIME1 4.644 MRKTIME2 2388 HAP8 VGTIG Z -29.1 AK1 -472	3291E+01 Ak 2129 TH 63-1 ST •540 ST 16-0 HP 6908 AD	*406 ETAD Z 62*6 AR X1 .765 AR X2 **151 ER 2672 01/ *178	3723E=01 STAF 15672E=03 STAF 272.0 RSP: 37022E=02 AD81	-19.76715 -19.76715 -19.4394531 2388.540 RY1 -2367206 RY2 -8804932 -8804932 -8804932 -9639 -5424768 -19.7615 -19.76715 -	AK2 BEST E=01 STAR STAR VGTIG E=02 AD01/6	7690430 1 -0000000 21 -0000000 22 -0000000	E=01
 THETAD Y =5	47.5684 9887696E-01 5.56885 5077438 4710.12 1398823E-01 6109449E-02	000 LEMMASS .0000 WB0D/0CR .0000 THETAD Z 44.4 JET FUEL 37.6 IXY 2036 WZ DEG/S .139 XGYR00UT .000	0000 IG 0000 CS 0000 WE 2871 S/ 5039 SL *133 IX 8823E=01 C6	MMASS 2652 18D/8CP +000 C MASS 1788 8SH AR -7.88 246	00000 WB80 3.571 X C0 86368 IXX 		ERROR THETAL Y CG LYY WX DE AYSCM	y .4833984 D X 108.0176 .3071489	E=02 E=04

TAPE WEDB RUN	6 VERIFICATION C4.18A TEST	RUN DATE 10/23/68 EDIT DATE 238	CT68 SDS TIME	2867 AGC TIME	2797.52 ID 777	PAGE 34

				201	207						11.04	
	PROGRAM	VERB- 21	NOUN 1 -	R1	- R2		-R3	FLASH	1 DSPTAI	8 +11 00000		
	PROGRAM	VERB 21	NOUN 1	R1	R2	9	R3 X	FLASH	1 DSPTAI	3 +11 00000		
				A(
	412223		45106113			159081	45106		ma44734931	38531613	80710101	
	*000420			+000426			86894		- • 33551168	- + 76422548	*55080962	
	= .911082	286 -,35838706	*20368291	911082	285 **35	838706	50398	8291	**82904267	•51719499 -	•21259761	
	REFSMMAT	ER GIMBAL ANGL	FS SDS CDU	AGC CDU	1 - 0 0114 5 7		CHACT		LOS DR	LOS ALT	100.00	
		DOO AIGH =57.44		#57 • 21`	AGC SHAFT	105	SHAFT	n'conan		-1195+23	LOS CR	
		000 AMG= 63.10		63 • 09	AGC TRUN		TRUN	V ERROR	1:19	*1.32	-101+88	
		000 ARG= 102+84		102 • 85	• 01		1 * 69	V ERROR	1:19	41.32	* * 27	
	^~ *(000 A00= 105+84	102*84	105 \$ 8 5	•01	161	, 652					
	STATE VEG	CT RX	RY	RZ	RSS	\	/X	vY	٧Z	RSS	TIME	
	SDS CM	-2532789.0	5341371 • 9	-3036066.4	6645522.8	-718	/X 2 • 34	-2554·9 ₁	1462:32	7743.71	71ME 2867.42	
	AGC CM	-2531661 • 9			6645773 . 1		51.+12	*2553 * 84	1461.63	7742+10		
	DELTA	-1127 - 1	-623+6	. 390 . 8	-250 -4		-1 - 22	-1.07	*69	1 . 61		
						-						
	SDS LM	-2533644.9			6653612.5.		55.77	=2562 * 16	1466 + 08	7740.74	2867.42	
	AGC LM	-2533646.2			6653590.8		55.76	-2562.18	1466.14	7740.75		
	DELTA	1.3	46.7	33+6	21 . 7		01	• 02	- = 06	-+01		
	POSITION	LAT	Leng	ALT	APOGEE	PERIO	SEE	AZIMUTH	ELEVATION	RANGE	RANGE RATE	
	SDS CM	=27·34		271836 • 9	272849+3	25840		=174=66	73+35	8443.3	*8 · 79	
	SDS LM	=27.34		279927 • 4	280915+9	2724		-114.00	73*33	0773*3	-01/2	
			04433	CILLELVA	500-10-2		1.2.40					
	FL'AGWD 0	00000 FLAGAD 1	00000 FLAGWD	2 00000 FLAGWD	3 00000	FLAGWD '4	00000	FLAGWD 5 4020	O FLAGHD 6	20000 FLAGWD	7 00100	
	FLAGWD 8											
	RCSFLAGS			42106 R\$BBQ+	1 03434	CADRFLSH	56016	CADR+1 . 7317	74 CADR+2 .	56016 FAILRE	G 00000	
	FAILRG+1	00000 FAILRG+2	00000 PIPA X	00026 PIPA Y	77771	PIPA Z	00365	FLAG 10 0000	OO FLAG 11	OCOCO BPTMBDI	ES 00120	
	HOLDFLAG	.00000 DAPDATR1		2 11111 REDOCT	R 00001	IMBDE 30	36001	IMODE 33 2600	00 CHAN 11	01040 CHAN 1	2 00040	
	CHAN 13	00100 CHAN 14	00000 CHAN 30	37373 CHAN 3	1 37777	CHAN 32	77777	CHAN 33 6776	55			
	COLL	4.00 2.04	CD11 57 .	7075 50		-0	COLLE	10 7/7/				
	CDUX	102:8101 -:6591529E-02		7285 CDUZ 8685E=01 AK		09448	AK1	=19.7671		*1612679 *•9887696		-
		102.9639	THETAD Y -56.8		AD Z 62 8		TIG	2388.54				
	BEST J	•1666667	MRKTIME1 4044			53723E=01		Y1 - 236720				
		*8011438E=01	MRKTIME2 2388			15672E=03	STAR					
		•88c4932		16.0 HPER		272 • 0		RREC 506002+				
		*10 • 34088	VGTIG Z ~29 · 1			61366E-02						
	AK	*10*3*0°° *4504395	AK1494			013605~02		/BBP - *310465 AD X 102,963		08Y -1498685 D Y =56,82129		
	THETAD Z			10000 IGC			MGC	•765536				
		147.5684				00000		Rx = 4504395				
-90	ERRORZ	•1318359										
		*55*56885	WB6D/6CR +000 THETAD Z 44+4		/8CP +000 MASS 1788		X CG	/0CY *0000000 8 * 46600				
	Z CG	*5077438								*3071489 79900.74		
	2 66	+5U//43a	JET FUEL 37.6	2003	H AR -7.8	00300	TXX	31119.4	H - IYY	72200.74		

246 • 1853

1 * 000000

YGYROOUT .0000000

ARSMM/S2 = 2224874E-02

IYZ

1424.454

AXSCM/S2 --9327403E-03 AYSCM/S2 --1235881E-02

ZGYR60UT .0000000 AXSMM/S2 .1696845E-02

WX DEG/S -. 3497057E -02

IZZ

84710:12

WY DEG/S .2098235E-01

AYSMM/S2 -- 1420699E-02

AZSCM/S2 -1597318E-02

IXY

2036 • 133

WZ DEG/S .1049118E-01

AZSMM/S2 - . 2289105ET03

XGYROOUT .0000000

IXZ

CONFIG

TAPE WEDB RUN	6 VERIFICATION C4+18A	TEST	RUN DATE 10/23/68 EDI	T DATE 230CT68 SDS TIME	2869 AGC TIME	2799.51 ID 777 P	AGE 35

PROGRAM VERB 21 PROGRAM VERB 21	NOUN 1	R1 10 R2	R3 77	FLASH 1	DSPTAB +1		
SDS REFERENCE 	45106113 86894023	.00042095494	EE MATRIX 59081451061 91686668940 38706203688	113		38598251 - 76408458	->80682874 -55127692 -21241975
REFSMMATER GIMBAL ANGL Y= 0000 AIG= -57.53 Z= 0000 AMG= 63.12 X= 0000 AGG= 102.91	-57×53 -57 63•12 63	•29 -04 •12 AGC TRUN	SDS SHAFT 10+99 SDS TRUN 140+23			-1197 • 13 -1 • 32	LOS CR. 100-88- 27
STATE VECT RX SDS CM -2547106.8 AGC CM -2545977.3 DELTA *1129.5			-7 ₁₅₅ .45 -7 ₁₅₄ .23 -1:22	VY =2569.41 =2568.34 =1.07	VZ 1470*59 1469*89 •69	RSS 7743.70 7742.09	TIME 2869.42
SDS LM -2547949*6 AGC LM -2547950*9 DELTA 1*3	5343596-2 -303711		*7148.89 *7148.88 **01	*2576*63 *2576*64 *02	1474+33 1474+39 -+06	7740*75 7740*76 =+01	2869.42
POSITION LAT SDS CM =27.31 SDS LM =27.31		4.5 272847.0	PERIGEE 258428+1 272477+1	AZIMUTH =174.73	ELEVATION 73+14	RANGE 8	RANGE RATE
FLAGWD 0 00000 FLAGWD 1 FLAGWD 8 00000 FLAGWD 9 RCSFLAGS 00011 RCSFLAGS FAILRG+1 00000 FAILRG+2 HBLDFLAG 00000 DAPDATR1 CHAN 13 00100 CHAN 14 CDUX 102-88370 ADB7/6BF *-1408160E=03 THETAD X 102-9639 BEST J *1666667 STAR RS1 *8011438E=01 STAR RS2 *8804932 VGTIG Y *10-34088 AK *4394531 THETAD Z 62-60010 LAUNCHAZ 147-55884 ERRERZ *1647949 THETAD Y *55-56885 Z CG *5077438 1ZZ 84710-12	00000 00011 RSBBQ 42106 00000 PIPA X 00026 11103 DAPDATR2 11111 00000 CHAN 30 37373 CDUY -57.23877 AD07/8BY .1498685E=01 THETAD Y -56.82129 MRKIIME1 404463.1 MRKIIME2 2388.540 HAP0 400616.0 VCTIG Z -29.16908 AK1 -5053711 06C .0000000 LEMNASS .0000000 MBDD/8CR .0000000	PIPA Y 77771 F REDBCTR 00001 I CHAN 31 37777 C CDUZ 63-10 AK +4394 THETAD Z 62-66 STAR X1 7655 STAR X2 *1515 HPER 2672 AD8T/ 1612 AK2 *1534 IGC 0000 CSMMASS 2652 WB8DJ8CP 0000 SJC MASS 1788 SL8SH AR 7.884 IXZ 2446:	CADRFLSH 56016 (2) PAR 2 00403 (3) PAR 32 77777 (2) PAR 32 77777 (3) PAR 32 77777 (3) PAR 3723E-01 STAR 3723E-01 STAR 3723E-02 STAR 3723E-02 (3) PAR 3723E-02 (3) PAR 3723E-03 STAR 3723	CADR+1 73174 FLAG 10 00000 IMODE 33 26000 CHAN 33 67765 -19-26715 -5053711 -2388-547 2 -88804932 FC 506002-0 09EP -1128540E-0 D X 102-9639 -7655360E-X +4614258 6CY 000000 8-466005 31119.44 1424-454	CADR+2 560: FLAG 11 000: CHAN 11 010: AD0T/ AK2 BEST I STAR Z1 STAR Z2 VGTIG X THETAD Y THETAD Y THETAD Y CG IYY WX DEG/S	16 FAILREG 00 8PTMDDE; 40 CHAN 12: -2135709E; -1428223 -0000000 -0000000 -3772564 -1498635E; -56.82129 -372820 -5163574 108.0176 -3071489 79900.74	00000 00120 00040
WY DEG/S •1049118E=01 AZSCM/S2 •4512131E=02 AYSMM/S2 ••2710591E=02	WZ DEG/S *1398823E*0; XGYR00UT *0000000 AZSMM/S2 *1569672E-02	YGYR88UT . GOOD		/S29327403E- BUT +0000000		**1235881E *3615332E	

	TAPE WEDB RUN	9 AEKILICA	TION C4+18A TEST	RUN DATE 10/	53/68 EDI	I DATE 238CT68	SDS TIME 28	71 AGC TIME	2801:50 ID 77	7 PAGE 36
	PROGRAM PROGRAM	VERB 21 VERB 21	NOUN 1 NOUN 1	R1 100		R3 77	7 FLASH		+1-1 00000 +11 00000	
-	***41222304 ***00042095	**REFERENCE MA ***79159081 ***49491686	ATRIX - - • 45106113 - • • 86894023	- · 412223	04 • 79:	NCE MATRIX 159081 45106 491686 86894	5113	- + 44699478 -	38674974 -	*80661154 *55170703
	91108286	35838706.		911082		338706 +20368		- 82963014		•21212745
		AIG= =57.62	-57.62	-57 - 38	AGC SHAFT	10.99		Les DR 649*24	LOS ALT -1199:01	
		AMG= 63.14 A8G= 102.97	63·14 102·97	63 · 12 102 · 99	AGC TRUN	SDS TRUN 124-17	V ERROR	1+19	-1.31	**26
	STATE VECT	RX *2561410•8	RY 5331094•3	RZ 3030184+1 6	RSS 645555+4	-7.148.51	vY ≈2583•90	1478 • 85	RSS 7743+69	7 I ME 2871 • 42
	DELTA	-2560278.8 -1132.0	5331722•2 •627•9	3030577 • 7 393 • 6	645802 · 4 -247 · 0	-7147*29 -1*21	*2582*82 *1*07	1478 • 15	7742*07	
	SDS LM AGC LM	-2562240*5 -2562241*7			653593 • 7 653572 • 0	-7141*98 -7141*97	*2591*08 *2591*10	1482.57	7740.77 7740.78	2871+42
	DELTA	1.3	46.7	33 • 4	21+8	01	• 02	-•06	==01	
	POSITION SDS CM SDS LM	LAT #27.28 #27.28	L8NG 64.65 64.62	ALT 271852 • 1 279891 • 3	AP8GEE 272844.6 280953.4	PERIGEE 258446 * 6 272474 * 5	AZIMUTH -174.80	ELEVATION 72.93	RANGE F	RANGE RATE *8.70
	FLAGWD 0 0000 FLAGWD 8 0000			00000 FLAGWD	3 00000 1	FLAGWD 4 00000	FLAGWD 5 4020	O FLAGWD 6'20	000 FLAGWD 7	00100
	RCSFLAGS 0001 FAILRG+1 0000 HBLDFLAG 0000	O FAILRG+2 O O DAPDATR1	00000 PIPA X 11103 DAPDAIR2	42106 RSBBQ+1 00026 PIPA Y 11111 REDECTE	77771	PIPA Z 00417 IMBDE 30 36001		0 FLAG 11 00 0 CHAN 11 01	016 FAILREG 000 OPTMODES 000 CHAN 12	00120
	CHAN 13 4010		00000 CHAN 30			CHAN 32 77777				
	ADOT/OBP = .76 THETAD X 102	24180E-02	CDUY -57.315 ADST/SBY .16207 THETAD Y -56.825	725E+01 AK		4395 AK1	*19*76715 **5273437 2388*540	AK2	*3922731E* *1757812 *0000000	03
		11438E-01	MRKTIME1 404463	3.1 STAR 540 STAR	X1 .765	3723E-01 STAR 5672E-03 STAR	Y1 - 2367206	Ero1 STAR Z1 STAR Z2	*0000000	

267272.0

~ 1977539

.0000000

26520.00

1788 + 571

246 . 1853

1 . 000000

WB8D/8CP .C000000

SLOSH AR -7,886368

ARSMM/S2 .6397471E-02

. YGYR88UT .0000000

- * 1002476E-02

RSP-RREC 506002.0

THETAD X 102,9639

ERRORX -- 4724121

WB8D/8CY .0000000

ZGYR88UT .0000000

MGC

X CG

IXX

AD0T/0BP - . 4485995E-02

AXSCM/S2 - . 9327403E - 03

.7655360E=01

8.466005

31119.44

1424 . 454

VGTIG X -37:72564

THETAD Y -56.82129

THETAD X 108:0176

IYY 79900.74

WX DEG/S --6994114E-02

AYSCM/S2 -- 1142607E=02

AXSMM/S2 .4665413F * 02

TEVENT

ERRORY

Y CG

AD01/08Y +1777635E=01

2372 +820

*3071489

*5383301

STAR RS2 .8804932

VGTIG Y -10.34088

THETAD Z 62.60010

LAUNCHAZ 147.5684

THETAD Y -55.56885

WY DEG/S .2447940E=01

AZSCM/S2 +6202723E=02

AYSMM/S2 - . 3462725E - 02

FRRORZ

Z CG

122

.4614258

.2087402

.5077438

84710+12

HAPB

AK1

6GC

1XY

VGTIG Z

LEMMASS

WB8D/8CR

THETAD Z

JET FUEL

WZ DEG/S

XGYROOUT

AZSMM/S2

400616 = 0

-29 - 16908

-.5273437

.0000000

*.00000000

•0000000

44 = 42871

37,65686

2036:133

.0000000

+2098235E=01

*2677889E-102

HPER

AK2

IGC

IXZ

CONFIG

AD8T/

CSMMASS

S/C MASS

122230* ***79159081 *5106133 ****45106133 ****4680182 ***3638706 ***363	TAPE WEDB RU	N 6 VERIFICA	ATION C4.18A TEST	RUN DATE 10	1/23/68 EDIT [DATE 230CT68	SDS TIME 2873	AGC TIME	2803:49 ID 7	777 PAGE 37
1222309 *99168 ***86894023 ***00042055 ***991680 ***86894023 ***35333706 ***20368291 ***20368291										
Y= .000 AMG = 63.16	41222304 -00042095	*79159081 **49491686	45106113 86894023	*41222	304 •79159 1095 ••4949	9081 4510 1686 8689	6113	44680142	~•38754 ₀ 58 ~•76394677	x 80633903 -55217886 -21193600
SDS CM	Y# #000 Z= #0000	AIG= +57:72 AMG= 63:16	*57*72 63*16	-57 · 47 63 · 14	AGC TRUN	10.99 SDS TRUN	R ERROR	653 • 26	-1200-86	LOS CR . *98*96 *•26
SDS LM	SDS CM AGC CM	-2575700.8 -2574566.4	5325912.0 - 5326542.0 -	·3027218 · 1 ·3027613 · 1	6645571+7	-7141.53 -7140.32	+2598.37 +2597.30	1487 • 10	7743.67 7742.06	TIME 2873.42
SDS CM	SDS LM AGC LM	*2576517*5 -2576518*7	5333278 • 6 5333231 • 8	-3031151 *8 -3031185 • 1	6653584 • 3 6653562 • 5	=7135*02 =7135*01	=2605.52 =2605.54	1490+80 1490+86	7740 • 79 7740 • 80	2873.42
RCSFLAGS 00011 RCSFLAGS 00011 RSBBQ 42106 RSBBQ+1 03434 CADRFLSH 56016 CADR+1 73174 CADR+2 56016 FAILREG 00000 FAILRG4-2 00000 PIPA X 00026 PIPA Y 77771 PIPA Z 00432 FLAG 10 00000 FLAG 11 00000 PTMODES 00120 HBLDFLAG 00000 DAPDATR1 11103 DAPDATR2 11111 REDECTR 00001 IMPDE 30 36001 IMPDE 30 36000 CHAN 11 01040 CHAN 12 00040 CHAN 34 40100 CHAN 34 0100 CHAN 37973 CHAN 377777 CHAN 37 67765 CDUX 103-0188 CDUY -57-41455 CDUZ 63-12744 CDUT -19-76755 AD8T/8BP **9991229E-03 AD8T/8BY *1812503E-01 AK **4614258 AK1 **5383301 AK2 **2087402 THETAD X 102-9639 THETAD Y -56-82129 THETAD Z 62-60100 TIG 2388-540 BEST I *0000000 STAR RS1 **8114-384-484-31 STAR RS1 **80114-38E-01 MRKTIME1 4074631 STAR X1 **7653723E-01 STAR X1 **254726E-01 STAR Z **0000000 STAR RS2 **864932 HAP8 **0016-0 HPER 267272-0 RSP-REC 506002-0 VGTIG X 377-72564 VGTIG Y **10-34088 VGTIG Z **29-16908 AD8T/** **3791578E-02 AD8T/8BP***** **1549164 AK2 **2216992 THETAD X 102-9639 THETAD X 102-9639 THETAD X 02-9639 THETAD X 02-9	SDS CM	+27·25	64.78	271859.6	272842 • 2	258465 • 2				RANGE RATE
ADBT/8BP **9991229E 03 ADBT/8BY *1812503E 01 AK **4614258 AK1 **5383301 AK2 **2087402 THETAD X 102*9639 THETAD Y -56*82129 THETAD Z 62*60010 TIG 2388.540 BEST I *0000000 STAR X1 **2367206E=01 STAR Z1 **0000000 STAR X2 **1515672E-03 STAR Y2 **8804932 STAR Z2 **0000000 STAR X2 **1515672E-03 STAR Y2 **8804932 STAR Z2 **0000000 STAR X2 **1515672E-03 STAR Y2 **8804932 STAR Z2 **0000000 STAR X2 **3791973E-02 STAR Y2 **3791973E-01 STAR Y2 **3791973E-02 STAR Y2 **3791973E-01 STAR Y2 **380192E-01 TEVET X102*9639 THETAD X **3791973E-01 STAR Y2 **3791973E-02 STAR Y2 **380192E-01 TEVET X102*9639 THETAD X **3791973E-01 STAR Y2 **3791973E-02 STAR Y2 **3791973E-01 STAR Y2 **3791	FLAGWD 8 000 RCSFLAGS 000 FAILRG+1 000 HOLDFLAG 000	000 FLAGWD 9 111 RCSFLAGS 100 FAILRG+2 100 DAPDATR1	00000 00011 RSBBQ 00000 PIPA X 11103 DAPDATR2	42106 RSBBQ: 00026 PIPA 11111 REDBC:	+1 03434 CAN 7 77771 PIN FR 00001 IM	DRFLSH 56016 PA Z 00432 BDE 30 36001	CADR+1 73174 FLAG 10 00000 IMBDE 33 26000	CADR+2 5 FLAG 11 0	56016 FAILREG	G 00000 FS 00120
IN SECURE ATTRECTOR OF THE DECK OF TOTAL OF THE PROPERTY OF TH	ADBT/BBP =:9 THETAD X 10 BEST J :1 STAR RS1 :8 STAR RS2 :8 VGTIG Y -10 AK THETAD Z 6 LAUNCHAZ 1 ERRORZ :2 THETAD Y -55 Z CG 15 IZZ 84	1991229E-03 12.9639 666667 1011438E-01 8804932 1.34088 17.4080 17.5684 416992 1.56885 1.56885 17.10+12	ADBT/BBY .1812ET THETAD Y -56.82: MRKTIME1	509E=01 AK 18-1 THE' 18-1 STAI 540 STAI 540 HPEI 908 AD0: 164 AK2 000 CSM 000 CSM 000 WB6 871 S/C 1445 SLG	.461421 AD Z 62-603 R X1 .76537 R X2 -15156 R 267272 R 37919 -24169 -24169 -24169 -26520 -200000 MASS 26520 -200000 MASS 1788-5 SH AR -7.8863	58 AK1 10 TIG 23E*01 STAR 72E*03 STAR 0 RSP* 73E*02 AD81 92 THET 00 MGC 00 ERR® 00 WB8D 71 X CG 68 IXX	**5383301 2388*540 Y1 **2367206E; Y2 **8804932 RREC 506002*0 /0BP **1318977E AD X 102,9639 **7655360E RX **483384 /BCY **000000 8*466005 31119,44 1424*454	AK2 BEST 1 STAR 2 STAR 2 VGTIG ADDIZE THETAL TEVENT ERRORY THETAL Y CG IYY WX DEC	2087402 [2087402 [200000000000000000000000000000000000	E*01

CONFIG 1 *000000

YGYRODUT .GOCCOOO

ARSMM/S2 +4869337E-02

AXSCM/S2 -- 9327403E+03 AYSCM/S2 -- 7695107E+03

AXSMM/S2 .*3411856E=02

ZGYR8euT .0000000

TAPE WEDR RUN 6 VERIFICATION C4.184 TEST RUN DATE 10/23/68 EDIT DATE 239CT48 SDS TIME

WZ DEG/S .2447940E=01

AZSMM/S2 +2009326E-02

XGYREBUT .GOCGOGG

WY DEG/S .1748529E=01

AZSCM/S2 .4698679E-02

AYSMM/S2 - . 283413CE - 02

PROGRAM 30	VERB 37 VERB 06	N6UN 30 N8UN 33	R1 R1		+00039 R3 +0	7 FLASH 1 4854 FLASH 1		8 +11 00000 B +11 00000	
41222304	*79159081	-,45106113	= + 4	1222304 • 7	ENCE MATRIX 9159081 4510	6113	+44686365	**38827062	80595350
*00042095 **91108286	**49491686 **35838706	**86894023 *20368291			9491686 ••8689 5838706 •2036	4023 == 8291 ==	•33401775 •82990766	*•76334143 •51629019	*55293894 *21142030
REFSMMAT ER	GIMBAL ANGLE	S SDS CDU	AGC CDU		T SDS SHAFT	R ERROR	Les DR	LOS ALT	LOS CR
Z* **000 X* *000	AMG= 63.16 ABG= 103.17	63 • 16	63.15 103.14	AGC TRU	N SDS TRUN	V ERROR	1:19	-1.30	**26
STATE VECT SDS CM AGC CM	RX -2589976.9 -2588840.1	RY 5320700•8 5321333•0	RZ -3024235•7 -3024632•1	RSS 6645587±9 6645831±5		VY =2612+83 =2611+76	VZ 1495•34 1494•65	RSS 7743 • 66 7742 • 05	2875.42
DELTA	-1136.8	=632 • 2	396 • 4	=243.6	-1,21	-1 + 07	•69	1 * 61	
SDS LM AGC LM DELTA	-2590780.5 -2590781.8 1.2	5328C53+1 5328006+3 46+8	-3028162 • 0 -3028195 • 1 33 • 1	6653553 * 0	-7128 • 02	*2619*95 *2619*97 *02	1499.02 1499.08	7740 • 80 7740 • 81 = • 01	2875 • 42
POSITION SDS CM SDS LM	LAT *27*22 -27*23	Leng 64.92 64.90	ALT 271867•1 279855•0			AZIMUTH ⇒174.93	ELEVATION 72+51	RANGE 8373+7	RANGE RATE
FLAGWD 0 000			2 00000 FL	AGWD 3 10000	FLAGWD 4 00000	FLAGWD 5 40200	FLAGWD 6	20000 FLAGWE	7 00100
RCSFLAGS 000 FAILRG+1 000 HBLDFLAG 000 CHAN 13 000	D11 RCSFLAGS D00 FAILRG+2 D00 DAPDATR1	00001 RSBBQ 00000 PIPA X	00026 PI 2 11111 RE	BBQ+1 03434 PA Y 77771 DBCTR 00001 AN 31 37777	CADRFLSH 56016 PIPA Z 00443 IMBDE 30 36001 CHAN 32 77777	FLAG 10 00000	CHAN 11	73647 FAILRE 00000 8PTM80 01040 CHAN 1	ES 00120
CDUX 10 ADOT/88P *** THETAD X 10		CDUY -57.5 AD8T/8BY -181 THETAD Y -56.8	2503E=01		14941 CDUT 33984 AK1 60010 TIG	=19.76715 =.5603027 2388.540	ADOT, AK2 BEST	2416992	
BEST J .	1666667 8011438E=01	MRKTIME1 4044 MRKTIME2 2388	63.1	STAR X1 . 76	53723E=01 STAF	1 Y1 2367.206E	E-01 STAR	Z1 .0000000	
	8804932	HAP8 4006	16.0	HPER 267	272 * 0 RSP	RREC 506002.0	STAR	3 X -37.72564	
AK .	4724121	VGTIG Z -29 1 AK1571	2891	AK2 -, 27	46582 THE	TAD X 103.1506	THET	VOBY .1969412 AD Y .57.56836	
THETAD Z 60	3.14941	6GC •000		IGC +00	00000 MGC	•7655360B			

26520:00

+0000000

1788,571

246:1853

1 . 000000

*2326850E-02

SLOSH AR =7.886368

YGYROOUT .0000000

ERRORX

X CG

IXX

IYZ

WB8D/8CY +0000000

ZGYRBBUT . COCCOCO

*1098633E*01

8.466005

31119.44

1424 = 454

AXSCM/S2 - . 9327403E - 03

ERRORY

IYY.

Y CG

*0000000

.3071489

79900.74

THETAD X 108:0176

WX DEG/S .1398823E-01

AYSCM/S2 - . 1515703E - 02

AXSMM/S2 .1838551E=02

CSMMASS

WB0D/0CP

S/C MASS

CONFIG

ARSMM/S2

IXZ

LAUNCHAZ 147,5684

THETAD Y -55.56885

WY DEG/S .0000000

AZSCM/S2 +1504044E=02

AYSMM/S2 -+1344395E-02

+0000000

.5077438

84710 + 12

ERRORZ

Z CG

LEMMASS

WB0D/0CR

THETAD Z

JET FUEL

WZ DEG/S

XGYROOUT

IXY

+00000000

.0000000

44.42871

37,67615

*0000000

AZSMM/S2 -+4759884E-03

.2447940E-01

PREGRAM 30	VERB 06	N8UN 33	R1 +00000 R2	-+00039 R3 -+04	4854 FLASH 1	DSPTAB +	11 00000	
SDS RE	FERENCE MATRI	īv	AGC REFERE	ENCE MATRIX		S/C ATTITI	UDE MATRIX	
		:45106113		0000000 *00000	9000 ***			80556512
		.86894023		000000 • 000000	0000	33412719	76269794	55376005
91108286 -	35838706	·20368291	*00000000 *00	000000 *00000	0000	82989717	51658082	21074939
REFSMMAT FR GI	MBAL ANGLES	SDS CDU AGC	CDU AGC SHAF	T SDS SHAFT		Las DR	LOS ALT	Les CR
	IG= =57+95		7:69 AGC SHAP	10.99	R ERRÓR		-1204 + 52	=97 × 14
	1G≈ 63+18		3.16 AGC TRUI		V ERROR	1.20	=1:30	=+26
	G= 103.31		3.29 .01		7 21111011	** = 0	2,00	
STATE VECT	RX		RSS	V-X	VY	VZ	RSS	TIME
		5315460 • 7 = 30212		~7127 • 46	-2627 + 27	1503.58	7743 • 64 7742 • 04	2877.42
DELTA	*1139*2	5316095 • 0 = 30216 =634 • 3	97 · 8 - 241 · 9	-7126·26 -1·20	*2626 · 20 -1 · 07	1502+88	-1.60	
Dielest A.	-112345	. "03113	37.40	-1.60	- T - D -	*63	-1.00	
		5322798+8 =30251		-7121+00	*2634 * 36	1507:24	7740.82	2877 • 42
		5322752 * 0 * 30251		-7120.99	·2634 · 38	-15 ₀ Z+3 ₀	7740.83	
DELTA	1 + 2	46.8	33.0 22.0	01	° 02	06	= + O1	
POSITION	LAT	Leng A	T APOGEE	PERIGEE	A7 I MUTH	ELEVATION.	RANGE RA	ANGE RATE
SDS CM	×27 • 19	65 • 06 2718		258502 • 6	-174.99	72.30	8356+6	#8 • 56
SDS LM	-27.20	65.03 2798	36.7 281010.3	272466 • 4				
51 4 CMD = 4 CD	EL LOUE L COL	0- 51 1015 0 -0100	E1 10/10 0 10	Di collo i deces	ELACUD E LAGRA	51 + 0 l/p + 0	C. LOUD D	
FLAGWD 0 00000 FLAGWD 8 00000	FLAGWD 1 001; FLAGWD 9 000		FLAGWD 3 10000	FLAGWD 4 10000	FLAGWD 5, 40200	FLAGWD 6 200	00 FLAGWD /	00100
RCSFLAGS 00001	VHFCNT 000		RCSFLAGS 00001	RSBBQ 42106	RSBBQ+1 03434	CADRELSH 560	16. CADR+1	73174
CADR+2 73662	FAILREG 000		FAILRG+2 00000	PIPA X 00026	PIPA Y 77771	PIPA Z 004		
HOLDFLAG 00000	DAPDATR1 111		REDOCTR 00001	IMODE 30 36001	IMODE 33 56000			00040
_ CHAN 13 00100	CHAN 14 000	100 CHAN 30 37373	CHAN 31 37777	CHAN 32 77777	CHAN 33 67765	FLAG 10 000	00 FLAG 11	00000
CDUx 103+	2166 CDU	-57 • 61230	CDU7 63.	14941 CDUT	-19.76715	AD6T/	•2723784F=	0.1
		T/0BY .2143756E-C		97266E=01 AK1	•0000000	AK2	1098633E-	
THETAD X 103:		TAD Y -57.56836	THETAD Z 63.		2388.540	DELLT4	1139:650	
RTARG X -6163	634. RTA	RG Y 2176504.	RTARG Z -123	5646. VHFT		MARKDOWN	404463 • 1	
MARKCDUY 6.88		KCDUS -1 .274414	MARKCDUZ -2 *1			MARKCDUX		
RM •000				00244 DELV		TPASS4	3550 • 230	
DELVSLVX 38.0		VSLVY 30:47991		46826 DELV		RANGE	13110.00	
RRATE -19.5					/88Y •2161190E AD Y •57.56836		4394532E**	01
ELEV =41.0		TANG 61.50000		620.0 DELV		THETAD Z	=10 • 06985	
DELV3 Z -29+3		V3 S 48 79555		coopo csmm		ERRORX.	*5493165F**	01
ERRORY .000		RORZ .5493165E=0			/8CP .0000000	WB8D/8CY		W 4.
THETAD X 108		TAD Y -55.56885		42871 RTHE	TA 53.71069	LAT(SPL)		
_LNG(SPL) -152.					MASS 1788.571	X CG	8.466005	
Y CG •307					H AR +7+886368	IXX	31119:44	
IYY 7990				6 • 133 IXZ	246 • 1853	IYZ	1424 • 454	
		DEG/S .1049118E-0		47940E-01 CONF		AXSCM/S2		
AYSCM/S2 = 160 AXSMM/S2 +213		SCM/S2 +1504044E=0			**************************************	ZGYROOUT	•0000000	
WYOULINGE #CT3	LOUTE OF ATS	111111 OC = 10014CE3F=(2 479441/25 -* 10	STEUE OU ARSI	11/ ac 4 c 1 2 2 1 4 4 F	400		

- PROGRAM 30 VERB 06	Nann 81 -	-R1 +01250 R2 +(01000 R3 +00030	FLASH 0	DSPTAB +1	1 00000	
SDS REFERENCE 41222304 -79159081 	45106113	AGC REFERENCE *00000000 - *0000 *0000000 *0000				JDE MATRI) 39018393 76212 9 55	~*80526519 *55453181
**91108286 **35838706	.20368291	*0000000 *0000	000000000000000000000000000000000000000	0 =	*83008575 *5	51663828	*20986509
REFSMMAT ER GIMBAL ANGL		CDU AGC SHAFT	SDS SHAFT			es alt	Les CR
Y= *000 AIG= *58*07 Z= *000 AMG= 63*21		7.8204 3.16 AGC TRUN	10:99 SDS TRUN	R ERROR	665.35 -	-1206+31	=96 · 27
X= .000 AFG= 103.44		3.43	151.23	-V-ERROR	1+20-	*1*69	**50
				VY	_	hee	
STATE VECT RX SDS CM =2618486.7	5310191+7 =30182	RSS	*7120*37	-2641 · 70	1511 • 8n	7743+63	2879 · 42
AGC CM -2617345.1	5310828 2 -30186		÷7119∗17	-2640.63	1511 • 11	7742 • 03	
DELTA =1141.6	- =636+53	99.2 -240.2	-1.20	-1.07	• 69	1+60	
SDS LM #2619264.5	5317515.7 -30221	33 • 1 6653556 • 0		-2648,76	1515 - 45	7740+83	2879 • 42
AGC LM -2619265.7				=2648.78	1515+51	7740 * 84	
DELTA 1.2	46.9	32.9 22.0	- · O1	• 02	-•06	= • 01	
POSITION LAT		T APOGEE.	PERIGEE	AZIMUTH	ELEVATION	RANGE	RANGE RATE
SDS CM =27.17 SDS LM =27.17			258521 • 4 272463 • 6	-175 • 05	72.09	8339.5	-8.51
SDS CH #2/*1/	55.1/ 2/38	18.5 281029.5	C/C40390				
FLAGWD 0 00000 FLAGWD 1 FLAGWD 8 00000 FLAGWD 9	00000	FLAGWD 3 10000 F			FLAGWD 6 2000		
RCSELAGS 00001 VHFCNT CADR+2 73662 FAILREG	00000 TRKMKCNT 00000 00000 FAILRG+1 00000			BBQ+1 03434 PA Y 77771			73174 ES 00120
HOLDFLAG 00000 DAPDATR1	11103 DAPDATR2 11111	REDOCTR 00001 II	MBDE 30 36001 IM	BDE 33 26000	CHAN 11 0100	02 CHAN 1	00040
CHAN 13 00100 CHAN 14	00000 CHAN 30 37373	CHAN 31 37777 C	HAN 32 77777 CH	AN 33 67765	FLAG 10 2000	DO FLAG 1	100000
CDUX 103+3594	CDUY -57.74414	CDUZ 63 • 16		-19.76715	ADOT/	• 2427400	
AD8T/8BP3761799E-02	AD8T/8BY .2178625E-0		797E-01 AK1	.0000000	AK2	= • 65917971	
THETAD X 103+1506 RTARG X *6163634+	THETAD Y =57.56836 RTARG Y 2176504.	THETAD Z 63.14 RTARG Z =12356		2388.540 1828.500	DELLT4 MARKDOWN	1139+650	
MARKCDUY 6.888428	MARKCDUS =1.274414	MARKCDUZ. #2 131			MARKCDUX		
RM •0000000	TPI 2018630.	ECSTEER 1.000	244 DELVTPF		TPASS4	3550 . 230	
DELVSLVX 38.09338	DELVSLVY 30 . 47991	DELVSLVZ .9246			RANGE	13110:00	
RRATE -19.55333	AD8T/ *2218187E=0			Y •2352968E		-+7690430	E=01
AK11098633E.01	AK2 ~.9887696E.0			Y -57,56836		63,14941	
ELEV =41.07942	CENTANG 61.50000	DELTAR 11762			DEFA3 A	*10.06985	
DELV3 Z =29.32339	DELV3 S 48.79555	LEMMASS +0000			ERRORX	*7690430	
ERRORY +2197266E+01 THETAD X 108+0176	ERRORZ •1098633 THETAD Y -55.56885	WB8D/8CR .0000 THETAD Z 44.42		P +0000000 53+71069	WB0D/0CY LAT(SPL)		
LNG(SPL) =152.2167	VPRED 7701.699	GAMMAEI =114.4			XCG.	8.466005	
Y CG •3071489	Z CG .5077438	JET FUEL 37.67		R -7.886368	IXX.	31119.44	
1YY 79900.74	IZZ 84710 • 12 ·	IXY 2036.		246:1853	İYZ	1424 • 454	
WX DEG/S .1398823E-01	WY DEG/S +3147352E-0		235E-01 CONFIG	1.000000	AXSCM/S2		
AYSCM/S2 1422429E-02	AZSCM/S2 .6389271E-0				ZGYROOUT		
AXSMM/S2 .5442982E-02	AYSMM/S2 1838551E-0		485E = 02 ARSMM/S	.66286628	E+02		

no on M. no						
PROGRAM, 30 VERE	3 NOW	R1 R2	R3	- FLASH-1 DSF	TAB +11 00000	
SDS REFERENC	SE MATRIX	AGE REFERE	NCF MATRIX	9.10	ATTITUDE MATRIX	
412223c4 •79155			0000000 *0000000			501962
*000420954949			0000000 +0000000	~ • 3340623		527997
9110828635838	8706 •20368291		0000000 0000000	(==83043623		882654
			.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			
REFSMMAT ER GIMBAL		CDU AGC SHAFT		. Les DR	LOS ALT LO	S CR
Y= +000 AIG= =58		7.9604		ERROR 669.39		-95.42
Z= ' •000 AMG= 6		3.20 AGC TRUN		ERROR - 1.20	•1.29	· • 25
X= +000 A0G= 10	3.59 103.59 10	• 57 • 01	162.02			
STATE VECT RX	. RY RZ		- VX	vY v7	- RSS-	m 8 1/m
SDS CM -26327				2656 • 12 1520 • 02		71ME 881.42
AGC CM -26315				655 05 1519 33		00] * 72
		00*6 *238*4	=1.19	=1 * 07 +65		
				2.0,	2.00	
SDS LM #263348			-7106.82 +2	663 • 14 1523 • 65	7740 • 85 2	881+42
AGC LM #26334				663.16 1523.7	7740 * 86	
DELTA	1 • 2 46 • 9	32.8 22.1	= • 01	• 02 ** 06	~ * 01	
POSITION	LAT LONG A	T APRGEE	PERIGEE A	ZIMUTH FLEVATIO	IN - RANGE RANG	E 0.75
	7 • 14 65 • 33 27 18			175 • 11 ELEVATION 71 • 88		E RATE
	7.14 65.31 2798		272460.9	1,2411 \1100	9355 93	20 4 4 C
		20.1				
FLAGWD 0 00000 FLAG	WD 1 00020 FLAGWD 2 00400	FLAGWD 3 10204	FLAGWD 4 000.00 FLAG	WD 5 40200 FLAGWD	6 20000 FLAGWD 7 00	100
	MD 9.00000					
RCSFLAGS 00001 VHEC						174
CADR+2 73662 FAIL		FAILRG+2 00000	PIPA X 00027 PIPA		00463 8PTM8DES 00	
	ATR1 11103 DAPDATR2 11111			E 33 26000 CHAN 1:		
CHAN 13 00100 CHAN	14 00000 CHAN 30 37373	CHAN 31 3/1/	CHAN 32 77777 CHAN	33 01/03 FLAG 1	0 00000 ELAG 11 00	
CDUX 103:4912	CDUv -57.87598	CDU7 63+1	8237 CDUT	=19.76715 ADI	e1904369F=01	
ADST/8BP +2165884E+	02 AD8T/88Y .2527312E=0	1 AK765	0430E=01 AK1	3295899E=01 AK		
THETAD X 103.1506	THETAD Y -57.56836	THETAD Z 63.1			LT4 1139.650	
RTARG X -6163634.	RTARG Y 2176504.	RTARG Z =1235			RKD6WN 404463.1	
MARKCDUY 6.888428	MARKCOUS -1 - 274414	MARKCDUZ +2+13			KCDLX *0000000	
RM •0000000 DELVSLVX 38•09338	TPI 2018630* DELVSLVY 30*47991		0244 DELVTPF 6826 DELVSLVS		ASS4 3550 230	
RRATE #19.55333	AD0T/ 01607985E=0		3161E=02 AD8T/8BY		NGE 13110.00 8789063E-01	
AK1 = 5493165F=					ETAD Z 63.14941	
ELEV =41.07942	CENTANG 61.50000				V3 Y =10:34079	
DELV3 7 =29.16918	DELV3 S 48.79531		0000 CSMMASS		R8Rx . *7690430E=01	
ERRORY .6591797E=	01 ERRORZ +1757812		00000 WB8D/8CP		0000000 +000	
THETAD X 108.0176	THETAD Y -55.56885	THETAD Z 44.4	2871 RTHETA		T(SPL) 27.92083	
LNG(SPL) -152,2167	VPRED 7701,699	GAMMAEL -114			CG 8,466005	
Y CG •3071489	Z CG5077438			-7 - 886368 IX		
1YY 79900.74	IZZ 84710 • 12		•133 IXZ	246 • 1853 IY		
WX DEG/S •1049118E=			7940E=01 CONFIG		SCM/S2 -+9327403E-03	
AYSCM/S21329155E+ AXSMM/S2 -4996062E=			00000 YGYR88UT 21491E=02 ARSMM/S2	*0000000 ZG	YR88UT +0000000	
WYOURN OF #122000EF=	AT WISHBARE 3045005F#	2 AZSMM/S2 .27	21491E=02 ARSMM/S2	*070E00>E#UE		

	PROGRAM 30 VERB 99	NOUN-99-	R1 +99962 R2 +014	+4 R3 +01601 + FLAS	H 1 DSPTA	8 +11 00000	
	SDS REFERENCE M	1ATRIX	AGC REFERENCE	MATRIX	S/C AT	TITUDE MATRI)	(
	41222304	**45106113 *86894023 *20368291	*0000000 *0000000 *0000000 *0000000 *0000000 *0000000	*0000000 *0000000	44496942 33387136 83098435	39270973 76118731 -51611304	**80485010 *55598903 *20759058
	REFSMMAT ER GIMBAL ANGLE Y# *000 AIG= *58*35 Z* *000 AMG= 63*32 X* *000 AGG* 103*73	S SDS CDU AGC (-58*35 -58* -63*32 -63* 103*73 103*	11 04 26 AGC TRUN	SDS SHAFT 10.99 R ERROR SDS TRUN V ERROR 142.13	Les DR 673•45	L8S ALT -1209 · 84 -1 · 28	LOS CR *94.59 *.25
-	STATE VECT RX SDS CM -2646939.6 AGC CM -2645793.2 DELTA -1146.4	RY RZ 5299567.3 -301214 5300208.0 -301254	RSS 1•3 6645652•5	77106.07 +2670.52 -7104.88 +2669.45 -1.19 -1.07	1528 • 23 1527 • 54 • 69	RSS 7743*60 7742*00	TIME 24.E885
	SDS LM #2647691.8 AGC LM #2647693.0 DELTA 1.2	5306863•1 -301603 5306816•2 -301607	8.5 6653537.1	*7099.67	1531.84 1531.90 06	7740 * 86 7740 * 88 ** • 01	2883:42
	P8SITION LAT SDS CM =27.11 SDS LM =27.11	Lang AL 65.47 27189 65.45 27978	6.2 272830.3	PERIGEE AZIMUTH 258559.2 -175.17 272458.1	ELEVATION 71.67	RANGE 8305.6	RANGE RATE
	FLAGWD 0 00000 FLAGWD 1 FLAGWD 8 500000 FLAGWD 9 RCSFLAGS 00001 VHFCNI CAOR+2 73552 FAILREG HBLDFLAG 00000 DAPDATR1 CHAN 13 00100 CHAN 14	00000 00000 TRKMKCNT 00000 00000 FAILRG+1 00000 11103 DAPDATR2 11111	FAILRG+2 00000 PIPA REDOCTR 00001 IMOD	Q 42106 RSBBG+1 03 X 00027 PIPA Y 77 E 30 36001 IMODE 33 26	434 CADRELSH 771 PIPA Z 000 CHAN 11	56016 CADR+1 00464 0PTM0DI 01040 CHAN 1	
	CDUX 103.6340 ADBT/BEP .114061DE-01 THETAD X 103.1506 RTARG X .6163634. MARKCDUY 6.888428 RM .000000 DELVSLVX 38.09338	CDUY -58.01880 AD8TZ8BY .2684221E-01 THETAD Y -57.56836 RTARG Y 2176504. MARKCDUS -1.274414. TPI 2018630. DELVSLVY 30.47991	CDUZ 63.23730 AK **8789063 THETAD Z 63.14394 RTARG Z *1235646. MARKCDUZ *2.131348 ECSTEER 1.000244 DELVSLVZ .9246826	E-01 AK187890 TIG 2388.5 VHFTIME 1828.5 MARKCDUT 3.5321 DELVTPF .00000	163E-01 AK2 140 DELLT 100 MARKD 104 MARKC	-:1977539 4 1139:650 8WN 404463:1 DUX :000000 4 3550:230	E=01
	RRATE -19.55333 AK11208496 ELEV -41.07942 DELV3 Z -29.16918 ERRORY .1318359	AD8T/ .1050085E-01 AK2 +.2197266 CENTANG 61.50000 DELV3 S 48.79531 ERRBRZ .2307129	AD01/08P 01698509 THETAD X 103.1506 DELTAR 11762000 LEMMASS 0000000 WB0D/0CR 0000000	E=01 ADBT/BBY •28585 THETAD Y -57,568 DELV3 X *37.725 CSMMASS 26520* WB6D/BCP •00000	65E-01 AK 36 THETA 545 DELV3 60 ERROR 600 WB0D/	8789063 D Z 63.14941 Y -10.34079 X .9887696	E=01
	THETAD X 108-0176 LNG(SPL) -152.2167 Y CG -3071489 IYY 79900-74 WX DEG/S -3497057E-02 AYSCM/S2 -1122429E-02	THETAD Y -55.56885 VPRED 7701 699 Z CG .5077498 IZZ 84710.12 WY DEG/S .4895880E-01 AZSCM/S2 .4791953E-02	XGYROOUT +0000000	SZC MASS 1788.5 SLOSH AR -7.08863 IXZ 246:18 E-01 CONFIG 1:0000 YGYROOUT :00000	771 X.CG 368 IXX 353 IYZ 700 AXSCM 700 ZGYR8	8.466005 31119:44 1424:454 1/S2 -:9327403	E=03

TAPE WEDB RUN	6 VERIFICATION CA	4.18A TEST	RUN DATE	10/23/68 EDIT	DATE 238CT68	SDS TIME	2885 AGC TIME	2815.43 ID 775	PAGE 43

PROGRAM : :	30 VERB 16-	NOUN 45	R1	+00 00 R2	+07 -06	R3 +038	61 FLASH 1	DSPTAE	3 +11 00000	
Si	DS REFERENCE M	ATRIX		AGC REFER	ENCE MATE	Tx		S/C ATT	TITUDE MATRI	v
-,412223			- 0/	2000000	0000000		-00 ==		39425969	80471706
*000420		86894023								
					0000000	+000000		33353734	76080775	*55670762
911082	86 - 35838706	.20368291	* 0 (0000000	0000000	*000000	00 4 =	83172250	•51549053	•20617557
REFSMMAT	ER GIMBAL ANGLE	S SDS CDU	AGC CDU	AGC SHAF	T SDS	SHAFT		LOS DR	LOS ALT	LOS CR
Y= . • 0		-58-51	+58 - 26			.99	R ERROR'	677 • 51	-1211.58	-93.78
Z= • 0		63.40	63.35	AGC TRU		TRUN		1:20	-1.28	**25
X= •0		103.87	103.84	*01		+27	A CUURU	1 # 2 0	-7:50	4450
X+ 40	00 YPB 100*8\	102.87	100184	*01	1 4 5	46/				
STATE VEC				RSS		Х - —	VY	¥Z	RSS	- TIME
SDS CM	~2661144*6	5294211.8	-3009076 • 6			8 * 86	-2684 - 91	1536 • 43	7743.59	2885 * 42
AGC CM	*2659995·8	5294854.7	-3009480 • D	6645903.5	-709	7 - 67	*2683 · 84	1535.74	7741.99	
DELIA	~1148.7	+642.9	403.3			1 - 19	1-07	+69	1+60	
000 14	0///880 0	50-1100 7	22120111	(150507 (7.0	0 10	0/0, 07		77. 00	
SDS LM	-2661883.9 -2661885.1	5301493.7	-3012966 · 6			2.49	-2691.87 -2691.89	1540.02	7740.88	2885 • 42
								1540.08		
DELTA	1.2	47 • 0	32.5	22 • 2		- • 01	• 02	~+06	- • 01	
POSITION	LAT	Lake	ALT	APOGEE	PERIG	EE 33	AZIMUTH	ELEVATION-	RANGE	RANGE RATE
SDS CM	=27·08	65 • 61	271903.3	272827.9	25857	8.3	*175·23	71 . 46	8288 • 8	*8 · 37
SDS LM	=27.08	65 • 59	279763.3	281087 • 6	27245	5 • 3				
ELAGWD O	00000 FLAGWD 1	nonzo EL AGWD	2 00400 FI	AGWD 3 10004	FLAGWD 4	10000 F	LAGWD 5 40200	FLAGWO 6 3	POROD FLAGWO	7 02100
FLAGWD 8			2 00,700 12	VGUD 2 10004	I LAGNO T	10000	LX400 3 40E00	, I ENGIND O	בטטטט י באמייט	7 02100
			NT. 00000 RC	SELAGS 00000	RSBBQ	42106 R	SBBQ+103434	CADDELOU	SEASE CARRES	73174
	10004 FAILREG			ILRG+2 00000			IPA Y 77770		00464 OPTMOD	re 00130
HOLDFLAG				DOCTR 00001	IMBDE 30		MeDE 33 26000			2 00040
CHAN 13.	00100. CHAN. 14	00000 CHWW 30) 3/3/3 CH	AN 31 3////	CHAN 32	21.121.	HAN 33 67765	FLAG 10 (00000 FLAG 1	1 00000
CDUX	103.7769	CDUY +58 + 1	17261	CDUZ 63.	29224	CDUT	-19.76715	ADOT/	.8234382	E-02
ADGT/8BP	.2169237E-01	AD01/08Y +291	10868E-01	AK	89063E=01	AK1	· · 1538086	AK2		
THETAD X	103,1506	THETAD Y -57 . 5	56836	THETAD Z 63.	14941	TIG	2388,540	DELLT	4 1139 . 650)
RTARG X	*6163634*	RTARG Y 2176	6504 0	RTARG Z #123	5646 .	VHFTIM	E 1828+500	MARKD	OWN 404463 . 1	
	6.888428	MARKCDUS -1.2		MARKCDUZ -2 +1			UT. 3.532104		DUX +0000000	
RM	•0000000				00244	DELVTE		TPASS		
	38 • n9338				246826	DELVSL		RANGE		
	-19.55333				74833E+01		BY . 2910868E			
AK1	*0000000			THETAD X 103			Y -58.23853		D Z 63.33618	
	#41 · 07942				7620.0	DEL V3			Y =10:34079	
	-29.16918				000000	CSMMAS		ERROR		
ERRORY	*1098633E=01			WB8D/8CR .OC		WBeD/6		WB0D/		
	108 • 0176	THETAD Y -55 .!		THETAD Z 44:		RTHETA		LAT (SI		
	-152,2167				4775		SS 1788.571	X CG	8,466005	
Y CG	•3071489			JET FUEL 37			AR =7 : 886368	IXX		
IYY	79900 • 74				36 - 133	IXZ	246 • 1853	IYZ	1424 • 454	
	•3497057E=02	WY DEG/S .55		WZ DEG/S .41		CONFIC			/S2 9327403	
	* • 1422429E = 02				000000	YGYROS		ZGYRO	0000000 TUB)
AXSMM/S2	.4767151E=02	AYSMM/S233	10118E-02	AZSMM/S2 .23	376309E=02	ARSMM	(S2 .6271320E	*02		

PRE	GRAM.	30	VERB 37	-N	BUN -40		R1	Ra	2	R3		FLASH-0	DSPT	AB +11 00000	
	412223		FERENCE *79159081	MATRIX	106113		AGC		RENCE MAT					TTITUDE MATE	
							+0000000		-0000000				+4248557		-+80461121
	000420		- 49491686		894023		*0000000		0000000	+0000			• 33304763	~ • 76049137	*55743337
特金	911088	286 4	35838706	* 20	368291		*0000000	0 *(0000000	,0000	0000	VI.	.83263946	•51462889	•20462203
REF Y=	SMMAT		MBAL ANGL		DS CDU	AGC		GC SHAP		SHAFT			Les DR	LOS ALT	Les CR
Z=			IG= =58.69		₹58 • 69	≈ 58		04		0.99		RROR	681 * 58	-1213:30	*92*99
			MG= 63.50		63.50	63		AGC TRU		S-TRUN-	-V-E	RRER	1:21	-1.27	- + 25
Χ×	0 (000 At	9G= 104.03		104.03	104	01	• 01	14	8.03					
	TE VE		RX		RY			RSS-		٧X	V		VZ	RSS	TIME
	SCM		-2675335 • 0			-3005999		45684 . 7		91.61	*269°		1544 062	7743 • 57	2887 * 42
	C CM	4	-2674183.9			-300640		45917 . 8		90 • 43	=269		1543.93	7741 • 98	
CE	LTA		*1151*1		-645.0	40	4 • 7	-533-1		~1 * 18		1 * 07	•69	1.59	
	S LM		2676061.7			-300987		53518 • 1		85 + 27	×270		1548+19	7740.90	2887 • 42
	C LM		2676062.9			-300991		53495 * 8		85.26	- =270	6.23	1548-26	7740 • 91	
DE	LTA		1 . 2		47 * 0	3:	2 . 4	22 • 3	3	01		• 02	#+06	**01	
	ITION		LAT		Leng	.AL	Т А	PRGEE	PERI	GEE	AZI	MUTH	ELEVATION	RANGE	RANGE RATE
	S CM		-27.05		65.75	27191		72825 + 5		97:4	-17	5 * 28	71 * 25	8272.2	=8,33
SD	S LM		#27 · 05		65 • 72	27974	4 * 8 2	81107 • 1	2724	52 * 5					
	GWD 0		FLAGWD 1		FLAGWD 2	00600	FLAGWD 3	10004	FLAGWD 4	10000	FLAGWD	5 40200	FLAGWD 6	20000 FLAGW	0.7.00100
	GWD 8		FLAGWD 9						****						- , 00.00
	FLAGS		VHECKT		. TRKMKCNT		RCSFLAGS		R\$BBQ.		RSBBQ+				
	R+2 DFLAG	10264	FAILREG		FAILRG+1		FAILRG+2		PIPA X	00027	PIPA Y				DES 00120
			DAPDATR1		DAPDATRE		REDOCTR		IMODE 30			33 26000		01002 CHAN	
CMA	N 13	_00100	CHAN 14	.00000	CHAN 30	-3/3/3	CHAN 31	37777	CHAN 32	77777	CHAN 3	3 67765	FLAG 10	00000 FLAG	11 00000
CDU		103+5		CDUY	-58 - 33		CDUZ		39111	CDUT		9.76715	ADOT,		
	T/BBP		247cE-01.		BY .2910				098633E-01			4394532E		- * 329589	
	TAD X	1030			Y -58 - 23		THETAD	Z 63	33618	TIG		388.540	DELL.		
	RG X	6.88		RTARG	Y 21765 US =1.274			Z =123		VHFT		828.500	MARKI		1
RM	d/ end i	*0000		TPI	20186			UZ -2 .				.532104		000000 xUC	
	VSLVX			DELVSL			ECSTEE DELVSL		246826	DELV		0000000 8 • 79534	TPAS		
RRA		#19.5!		AD8T/		387E=02	ADST/S		912673E=01			30852116		= 13110 * 0 = *109863	
AK1			7696F=01	AK2		797E-01			3.8318		AD Y .5		THET		
ELE		#41+0		CENTAN			DELTAR		7620*0	DELV		7.72545	DELV:		
		-29.1		DEL V3			LEMMAS		000000	CSMM		6520.00			
	BRY	•0000		ERRORZ		633E=01	WB9D/8		000000			0000000	ERROI		
	TAD X				Y -55 - 56		THETAD		42871	RTHE		3 • 71069	WBOD.		
		152.		VPRED	7701			I -11			MASS 1		X CG		
YC		,307		Z CG	*5077		JET FU		67456		H AR =7		IXX	31119.4	
TYY		7990		IZZ	84710		·IXY		36:133	IXZ		46,1853	IYZ	1424:45	
			7057E+02	WY DEG		703E = 01	WZ DEG		098235E-01	CONF		*000000	AXSCI		
			5881E-02	AZSCM/		175E-02			000000			0000000	ZGYRI		
	SMM/S2		6345E-02		S2 3321				510748E-02			6231269E		-000000	

TAPE WEDB RUN 6 VERIFICATION C4.18A TES	RUN DATE 10/23/68 EDIT DATE 230CT68	SDS TIME 2889 AGC TIME	2819+42 ID 774 PAGE 45
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PRBGRAM 40 VE	RB 50 NOUN 18	R1 +10	229 R2 +304	468 R3 +04427	FLASH 0	- DSPTAB +11 000	00
SDS REFERENCE * * * * * * * * * * * * * * * * * * *	1686 - 86894023	**#1222 *000420 **91108	095 - 494916	081 =:45106113 686 =:86894023	***3325	54313760205	59 80457664 51 55812430
REFSMMAT ER GIMBAL Y= <000 AIG= =: Z= <pre>=000 AMG= 6 X= <pre>000 A0G= 16</pre></pre>	58 · 87	AGC CDU -58.61 63.56 104.15	AGC SHAFT 			DR L8S AL 85.65 -1215. 1.21 -1.	
STATE VECT R: SDS CM #26899 AGC CM #26880 DELTA #1	511.0 5283414.7 557.5 5284061.9	-3003304.3	6645700 • 7 6645932 • 0	-7083 · 15 -	·2713 • 63 155 ·2712 • 56 155	7743 RS 52 · 81 7743 · 52 · 12 7741 · 69	56 2889•42 97
SDS LM #2690; AGC LM #2690; DELTA			6653508 • 6 6653486 • 3 22 • 4			56.36 7740. 56.42 7740.	92
	LAT L6NG 27.02 65.89 27.02 65.86	ALT 271917•3 279726•3	Ap8GEE 272823 • 0 281126 • 8	PERIGEE 258616+6 272449+6		VATION RANG 71:03 8255	
FLAGWD 8 50000 FLA RCSFLAGS 00001 RCS FAILRG+1 00000 FAI	GWD 9 00000 FLAGS 00001 RSBBQ RG+2 00000 PIPA DATR1 11103 DAPDA	X 00027 PIPA Y TR2 11111 REDOCT	1 03434 CAD 77770 PIP R 00001 IMB	RFLSH 56016 CAE	OR+1 73174 CA AG 10 00000 FL BDE 33 06000 CH	DR+2 56016 FA AG 11 00000 6P	AGWD 7 00100 ILREG 00000 TM8DES 00120 AN 12 00040
CDUX 104.0735 ADBT/BBP .4470572E THETAD X 104.0625 RTARG X *6163634* DELV X *000000 ADBT/BBY .3007252E THETAD X 758.48022 TEVENT 2372.820 ERRORX *2197266E WBBD/6CY *000000 VGTIG Y *10.61211 Z CG *5077438 17Z 84710.12 WY DEG/S 47507438 AZSCM/S2 *1410770E AYSMM/S2 *.1318961E	-01 ADBİZBBY .3: THETAD Y -58 RTARG Y 21 DELV Y .0: YCMD .0: YCMD .0: THETAD Z 63. PCMD .0: ERRBRY .8: THETAD X 10: VGTIG Z -29 JET FUEL 37 IXY 20: "C1 WZ DEG/S .2: "C2 XGYRBBUT .0	**8022 THET 7/650+* RTAR 8000000 DELV 2000000 CSTE 998633E=01 AK1 47900 ELEV 2000000 YCMD 789063E=01 ERR8 870 54133 IXZ 4479+0E=01 CONF 000000 YGW 9787	**C000000 **G3*4790 **G2 **1235646 **Z **499500 **ER **000000 **G59179 **1**C794 **C000000 **S49316 **C000000 **S49316 **C000000 **S49316 **C000000 **S49316 **C000000 **S49316 **C0000000 **S49316 **C00000000000000000000000000000000000	0 AK1 110 110 170 AD87/ 7E-01 AK2 CENTANG LEMMASS 5E-01 WB0D/8CF 8 THETAD 1 X CG 8 IXX 3 IXZ 0 AXSCM/SZ 0 ZGYR89U'	0000000	AK2 .000 DELLT4 1139 PIPTIME1 2418 YACTOFF 2423 AD07/080 492 THETAD X 104* DELTAR 1176 CSMMASS 2652 W80D/0CP vGTIG X 37.7 Y CG 307 IYY 7990 WX DEG/S *-104	*650 *580 0150 3866E*01 0625 20.0 0.00 0000 6913 1489 0.74 9118E*01 5881E*02

PREGRAM 40 VERB	Neur	64 80	0.0	eni arti e	20 M2 - 100 - 20		
PROGRAM VERB	NOUN	R1 R2	K3	FLASH O	DSPTAB	+11 00000	
SDS REFERENCE			ENCE MATRIX		S/C ATTI	ITUDE MATRIX	
**41222304. *79159081		**41222304 75			44648910 -	• 39622855	-+80228043
*00042095 **49491686			9491686 **8689			. 75953031	•55963111
**91108286 **35838706	.20368291	91108285 31	5838706 •2036	8291 **	83109832	*51586509	*20775223
REFSMMAT ER GIMBAL ANGLI	ES SDS CDU AGC	CDU AGC SHAF	T SDS SHAFT		LOS DR	LOS ALT	Les CR
Y= *000 AIG= *58.92		3.8004		R ERROR	689.73	-1216+67	=91+48
Z= =:000 AMG= 63:26		3-67 AGC TRUI		'V ERROR	1:21	=1+26	**25
X= +000 A8G= 104.22		+,30 +01			4.44	4	
STATE VECT RX	RY R7.	nen		vY		200	
SDS CM #2703672+3	RY RZ- 5277973•1 •299978		-7077 • 00	-2727 · 98	1560 • 99	RSS 7743*55	TIME
AGC CM #2702516+5				=2727 · 30	1560*29	7743*55	2891 • 42
DELTA #1155.8		7.5		#1.07	1200*23	1 * 59	
- mrf.v = 1100x0	F0#2#3	1/13	=1.10	T.a.O.	*07		
SDS LM #2704373+7	5285213+5 =300365	53.0 6653499:1	~7070 • 70	*2734 · 85	1564 + 52	7740 * 93	2891 • 42
AGC_LM -27.04374.8	5285166*4 =300368	35 * 1 6653476 * 7	-7070.70	*27.34 * 87	1564 + 58	7740+94	
DELTA 1 · 1	47 • 1	32 • 1 22 • 4	** 01	* 02	**06	01	
position Lat	LONG AL	T ARRGEE	PERIGEE	AZIMUTH	ELEVATION	RANGE	RANGE-RATE
SDS CM #26.99				-175-39	70.82	8239 * 0	*8 * 23
SDS LM *26.99				9	. 0 =	-44	
FLAGWD 0 00200 FLAGWD 1	00000 FLAGWD 2 00734	FLAGWD 3 10004	FLAGWD 4 00000	FLAGWD 5 40202	ELAGNO 4 30	0000 FLAGWD	7 00100
FLAGWD 8 50000 FLAGWD 9		1 ENGINE 3 1000 T	1 EXG. 7 00000	TENGTO D TOLOL	LEVAND O ST	1000 I EVG.D	1,00100
RCSFLAGS 00001 RCSFLAGS		RSBBQ+1 03434	CADRELSH 56016	CADR+1 73174	CADR+2 56	6016 FAILREG	00000
FAILRG+1 00000 FAILRG+2		PIPA Y 77770	PIPAZ 00453	FLAG 10 00000			S 00120
HOLDFLAG 77776 DAPDATR1		REDECTR 00001	IMBDE 30 36001	IMBDE 33 26000			00040
CHAN 13 40100 CHAN 14			CHAN 32 77777	CHAN 33 67765	0.175.1.		
CDUX 104+2383	CDUy =58+69995	CDU7 63*	61084 CDUT	*19.76715	AD6T/	**8314848F	
ADDT/88P •5307422E=01	AD07/08Y 3207252E-0		28633E-01 AK1	*1318359	AV2	**7.690430E	
THETAD X 104+0625	THETAD Y -58:48022	THETAD Z 63.	479nn TIG	2388:540	DELLT4	1139 • 650	.401
RTARG X =6163634:	RTARG Y 2176504+		5646 TGB	~964698 *O	PIPTIME		
DELY X *0000000	DELY Y +0000000			OFF2.918175	YACTOF		
PCMD •0000000	YCMD .0000000		OOOOO ADST			BP **1449198	
AD0T/08Y .3589467E.01	AK2416992		11768 AK2	3295899E			
THETAD Y *58.41431	THETAD Z 62.42432	ELEV -41.	07942 CENT	ANG 61.50000	DELTAR	117620+0	
TEVENT 2372.820	PCMD +0000000	YCMD .00	100000 LEMM	1ASS .0000000	CSMMASS	S 26520:00	
ERRORX *1757812	ERRORY -4.262695	ERRORZ +10	98633E = 01 WB0D	/OCR •1732539	WB6D/60	CP #3.996222	
WB0D/0CY .6408804E 02	THETAD_X 102:3047	THETAD Y -55.	30518 THET	AD Z 44.27490	- VGTIG	x *37.76913	
VGTIG Y -10-61211	VGTIG Z =29.01478		8.571 X CG		Y CG	.3071489	
Z CG *5077438	JET FUEL 38 . 38831	SLOSH AR +7.8		31119 • 44	IYY	79900 • 74	
IZZ 84710:12	1XY 2036 • 133		:1853 IYZ	1424 - 454		/S -: 1049118E	
WY DEG/S = +8987436	WZ DEG/S *1293911			CM/S2 9327403E			
AZSCM/S2 ** 4822267E * 01	XGYR88UT .0000000 .			00000000 TUBBS	AXSMM/	S2 **3543752E	=01
AYSMM/S2 .1972264E.01	AZSMM/S22677526E+0	1ARSMM/S2 .48	159748E-01				

PREGRAM 4	0 = VERB 06	N8UN 18	- R1	+10230 R2	+30468 R3 +0	4427 - FLASH 0	DSPTA	B +11 00000	
SD	S REFERENCE	MATRIX		AGC REFER	FNCF MATRIX		S/C AT	TITUDE MATRI:	Y
** 4122230		-:45106113	***		9159081 **4510	6113	•50138044	36932945	- : 78244638
+0004209		86894023			9491686 8689		*32807302	**75564027	*56690001
9110828	6 **35838706	.20368291	= = 9	1108285 3	5838706 #2036	8291 (*	*80062103	•54093075	•25769663
REFSMMAT E	R GIMBAL ANGLE	S SDS CDU	AGC CDU	AGC SHAF	T SDS SHAFT		LOS DR	LOS ALT	LOS CR
Ys +00		~58×13	-58-41			R ERROR	693.82	-1218.33	-90.75
Z= = +00	0 AMG# 59.60	59-60	61.64	AGC TRU	N SDS TRUN	V ERROR	1.21	-1.25	= = 24
X≥ +00	00 A8G* 103.57	103.57	103.95	•01	132.81		0.00		
 STATE VECT	RX	RY .	RZ	RSS		vY	·V7	RSS	TIME-
SDS CM	=2717819 · O	5272502.8	-2996654 + 2	6645732 . 7	-7069+64	-2742-30	1569 15	7743.53	2893+42
AGC CM	#2716660·8	5273154 * 3	-2997063 + 1		-7068 + 47	-2741.24	1568 # 46	7741.94	
 DELTA	-1158.2	*651 * 4	408 - 9	227.47	-1 - 17		•69	- 1-159	
SDS LM	=2718507.8	5279729.5	*3000515 *8			-2749·15	1572 • 67	7740.94	2893,42
AGC LM	#2718508a9	5279682*4	=3000547 · 8			-2749-16	1572.73	7740+96	-1-11
DELTA	1 • 1	47 • 1	32 • 0	22.5	01	• 02	⇒ * 06	= * 01	
 pesition	LAT		ALT	APOGEE	PERIGEE	AZIMUTH	ELEVATION	RANGE	RANGE RATE
SDS CM	#26·96	66.16	271931 • 0		258655 • 3	-175.44	70.61	8222 + 6	-8 • 1 9
SDS LM	=26.96	66.13	279689 • 0	281166•3	272443,9				
FLAGWD O			2 00734 FL	AGWD 3 10004	FLAGWD 4 00000	FLAGWD 5 40202	FLAGWD 6	20000 FLAGWD	7 00100
FLAGWD 8 5	0000 FLAGWD 9		101-1 De		A. ARTI OU Pro-14	0.00.1 70.71	0.00.0		
 RCSFLAGS 4				SBBQ+1 03434 IPA Y 77770	CADRELSH 56016 PIPAZ 00443	CADR+1 73174 FLAG 10 00000	- CADR+2 . - FLAG 11	56016 FAILRE	
HOLDFLAG 7				DOCTR 00001	IMBDE 30 36001	IMBDE 33 26000		01000 CHAN 1	ES 00120 2 00040
CHAN 13 4					CHAN 32 77777			OTOOC CHAN T	2 000+0
	411.11				-11				
CDUX	104.2822	CDUY -58.7			18237 CDUT		ADOT,		
ADOT/OBP .		AD01/08Y 397			98633AK1_	2.955322	AK2		
THETAD X		THETAD Y -57 +5			84277 TIG	2388.540	DELLI		
RTARG X *	6163634 •	RTARG Y 2176		RTARG Z #123		-24187 • 24	PIPT		
PCMD	*0000000		0000		95000 PACT 00000 AD8T	*0EF *2*918175 / **1108423E	YACTE	OFF 2.230150 OBP -2.031150	
	*4545004E *01		9063E+01		41113 AK2	.5493165E			
THETAD Y		THETAD Z 54.8			07942 CENT		DELTA		
TEVENT	2372 820		0000		00000 LEMM		CSMM		
	•2197266		4805			/8CR •1732539		OCP +3.996222	
	.6408804E=02	THETAD X 102.		THETAD Y -55.		AD Z 44.27490	VGTI		
	-10.61211	VGTIG Z -29.0			8.571 X CG		Y CG	.3071489	
Z CG	•5077438	JET FUEL 39 . 8		SLOSH AR =7 .8		31119+44	IYY	79900:74	
 IZZ	84710:12	IXX 5036			•1853 IYZ	1424.454	WX DE		
WY DEG/S		WZ DEG/S .377				M/S2 +8861033E			
	- 4680025E + 01	XGYROOUT .OOC				0000000 TUBBS	AXSMI	M/S2 = :3563736	E=01
AYSMM/52	.2293102F=01	A7SMM/S2 217	1350F=01	ARSMMISP 47	618615=01				

PREGRAM 40 VERB 06	NOUN-18	R1 +10230 R2 +	30468 R3 +04427	FLASH 0	DSPTAB +11 00000-	
SDS REFERENCE ***41222304 *79159081 *00042095 ***49491686 ***91108286 ***35838706	45106113 86894023	AGC REFEREN •41222304 •791 •00042095 ••494 •91108285 ••358	59081 45106113 91686 86894023	**605	S/C ATTITUDE MATRI 3798230919886 3595674726272 74482 -58821630	× -*73343372 *58110499 *35270500
REFSMMAT ER GIMBAL ANGLI Y# *000 AIG= =56*80 Z# #*000 AMG# 52*19 X# *000 A6G# 102*75	*56*81 *57* 52*19 55	24 04 84 AGC TRUN		R ERROR 6	DR LOS ALT 97.91 -1219.97 1.21 -1.25	LOS CR =90.03 =.24
STATE VECT RX SDS CM =2731950*8 AGC CM #2730790*4 DELTA #1160*5	5267 ₀₀ 3.9 ~299350; 5267657.5 ~2993918	7.8 6645748.6	=7062+24 =7061+07		VZ RSS .77*31 7743*52 .76*62 7741*93 .69 1*59	71ME 2895•42
SDS LM -2732627.1 AGC LM -2732628.2 DELTA 1.1	5274169+8 -2997394				80.81 7740.96 80.87 7740.97 06 .01	2895+42
p8SITI8N LAI SDS CM #26.93 SDS LM #26.93	66.30 27193				VATION RANGE 70:40 8206:3	RANGE RATE
FLAGWD 0 00200 FLAGWD 1 FLAGWD 8 500000 FLAGWD 9 RCSFLAGS 40001 RCSFLAGS FAILRG+1 00000 FAILRG+2 HBLDFLAG 77776 DAPDATRI CHAN 13 40100 CHAN 14	00000 40001 RSBBQ 42106 00000 PIPA X 00026 11103 DAPDATR2 11111	RSB80+1 03434 C PIPA Y 77771 P REDOCTR 00001 I	ADRFLSH 56016 CAD	0R+1 73174 CA GG 10 00000 FL DDE 33 26000 CH	AGWD 6 20000 FLAGWD DR+2 56016 FAILRE AG 11 00000 0PTM0D IAN 11 01000 CHAN 1	G 00000 DES 00120
CDUX 103.5791 ADBT/8BP =2.990408 THETAD X 102.6672 RTARG X 6163634. DELY X 0000000 ADBT/BBY .3398.359=.01 THETAD Y 55.64575 TEVENT 2372.820 ERRORX .2966309 WBBD/GCY .66880%=02 VGTIG Y 10.61211 Z CG 5077438 IZZ 84710.12 WY DEG/S **161498 AZSCM/S2 .5734021E-01 AYSMM/S2 .3455822E-01	CDUY -57.86499 ADB1/BBY .3398359E-01 THETAD Y +56.19507 RTARGY 2176504* DELV Y .0000000 AK .2526855 THETAD Z .2526855 THETAD Z .26.92261 PCMD .0000000 ERRØRY 1.713867 THETAD X 102-33047 VGTIG Z .29.01478 JET FUEL 41.01257 IXY .2036-133 WZ DEG/S .5280556 XGYRØ8UT .0000000 AZSMM/S2 .2681886E=01	THETAD Z 50.88 RTARG Z -12356 DELV Z -4495 CSTEER .0000 AK1 -1.735 ELEV .41.07 YCMD .0000 ERRBRZ -1208 THETAD Y -55.30 S/C MASS 1788 LXZ .246.1 CONFIG 1.0000 YGYRBÐUT .0000	402 AK1 867 TIG 867 TIG 146. TGB 1000 PACIBF 1000 ADBT/ 840 AK2 542 CENTANG 1000 LEMMASS 1496 WB8D/0CF 1518 THETAD 1571 X CG 368 IXX 853 IYZ 1000 AXSCM/S2	*1510251 *5591797E*01 61:50000 *00000000 *1732539 74:27490 8:466005 31119:44 1422:454 2:**9327403E*03	AD8T/ 1433808 AK2 9887696 DELLT4 1397-657 PIPTIME1 2418-580 YACTBFF 2*230150 THETAD X 102,4255 DELTAR 1176200. CSMMASS 26520.00 WB8DJ0CP =3.9942022 VGTIG X 3377485 IYY 79900.74 WX DEG/S *139882 AYSCM/S2 **4162354 AXSMM/S2 *3755585	5E * 01

	PROGRAM 40	VERB 50	N9UN 18-	R1 +1	0230 R2 +30)468 R3 +044	27 FLASH 1	- DSPT/	AB +11 00000	
	SDS	REFERENCE	MATDIV		AGC REFERENCE	MATRI		0.45	TITUDE MATRIX	
	-+41222304	*79159081	T445106113	**4122			12	68649912		- +68158841
	•00042095		86894023	•0004				31591249	~ • 74037886	*59332776
	91108286		*20368291	= • 9110				65491891	-62264085	*42825150
			450000521	-45770	-423036	7700 7200C		10747[02]	*02204000	145050100
	REFSMMAT ER	GIMBAL ANGLI	ES SDS CDU	AGC CDU	AGC SHAFT	SDS SHAFT		Les DR	LOS ALT	LOS CR
	Y= +000		=55*97	*56 • 05	**04	10.99	R ERROR'	702:05	=1221 ±59	-89·34
	Z= = +000		45 * 83	48 • 16	AGC TRUN	SDS TRUN	V ERROR	1.21	-1.24	> 24
	X= +000		102.37	102.51	• 01	158 • 11	1 41111911	1451	-1454	A. A. C
	7	Mod- woma-)	40544	100407	402	720+11				
	STATE VECT		RY	RZ -	RSS	vx	- ~ VY	·- V-Z	RSS	-TIME
	SDS CM	*2746067·9	5261476.4	-2990345+0	6645764.5	-7054+80	+2770.92	1585 • 46	7743+51	2897 • 42
	AGC CM	-2744905 • 1	5262132 • 1	~2990756.6	6645988.5	-7053.64	-2769 - 85	1584.77	7741.92	2027 10
	DELTA	-1162.8	+655+7	411+7	-224.0	+1+16	-1-07		1.58	
				7.4.4.		4.10	2-07		1490	
	SDS LM	*2746731*7	5268675.8	~2994192.6	6653470.5	e7048 e 57	+2777 × 70	1588,94	7740.98	2897 • 42
	AGC LM	*2746732*8	5268628*6	=2994224.3	665344748	×7048.56	*2777 · 71	1589+00	7740.99	
	DELTA	1 + 1	47.2	31 +8	22+6	~ × O1	• 02	= + 06	**01	
			_			* *				
	pasition.	L.A.T.	LONG	ALT	APRGEE	PERIGEE-	AZIMUTH.	ELEVATION	RANGE	RANGE RATE-
	SDS CM	*26 · 89	66 * 43	271944.5	272813+2	258694+3	-175 - 54	70 • 19	8190+0	=8 = 10
	SDS LM	*26.90	66 • 41	279651 + 6	281206 • 3	272438 • 0	•			
	FLAGWD 0 00	200 FLAGWD 1	nonno ELACUD	2 00734 51 404	D 2 1000h El	AGWD 4 10000 F	ACHO E MODOO	CL + CHO <	Canaa El Agua	7 00400
	FLAGWD 8 50			2 00/34 FLAG	10 3 10004 FF	4GMD 4 10000 P	FYGWD 9 40505	FLAGWD 6	20000 FLAGWD	/ 00100
	RCSFLAGS 00			42106 RSBB0	+1 03434 CA	ORFLSH 56016 C	CADR+1 73174	CADR+2	56016 FAILREG	00000
	FAILRG+1 00			00024 PIPA			LAG 10 00000			S 00120
	HOLDFLAG 77			2 11111 RFD80			MBDE 33 56000			00040
	CHAN 13 40			37373 CHAN		AN 32 77777 C			OTOTE CHAN IS	00040
-	THUN THE TU	TUU LHAN LT	CHAN 30	L	31 3/1/1 LM	AN SE LELLI-L	HWW 22 01102			
	CDUX 1	02.7551	CDUy -56 . 5	3564 CDI	51 • 701	66 CDUT	-19.76715	ADOT.	1508508	
	ADOT/OBP +4			1681E=01 AK	•54931		-8 - 140869	AK2	*1098633E	-01
		02:3047	THETAD Y -55.3		TAD Z 44.274		2388,540	DELL		U +
		163634 *			RG Z =123564		*24187 *24	PIPT		
		0000000			V Z * 40950		F -2.918175	YACTI		
		0000000			EER .00000		•1511995		/8BP -3:088021	
		4023985F-01		5625 AK			1098633	THET		
	THETAD Y +5		THETAD Z 44+2				IG 61.50000	DELT		
		372.820		00000 YC				CSMM.		
		2856445			RBRZ +13183			WBeD		
		0000000	THETAD X 102		TAD Y -55,305				G X +37 + 76913	
		0.61211	VGTIG Z -29.0		MASS 1788.5		8,466005	Y CG		
		5077438			SH AR =7.8863		31119+44	TYY	79900 • 74	
		4710.12		•133 IX			1424.454	Wx D		
	WY DEG/S =2				NFIG 1.0000		/S2 9327403E		M/S2 = 7170441E	-02
		5460029E=01			YR88UT +00000			AXSM		
		3686185F=01	AZSMM/S2 .198		SMM/S2 .55228		-0.000000	MAGIN	1,05 10055055	01

PROGRAM 40	VERB 50	NOUN-18	R	1 +10230 R2	+30468 -R3 +0	4427 - FLASH 1	- DSPTA	8 +11 00000	
SDS	REFERENCE M	ATRIX -+45106113	- 4		NCE MATRIX	6113		TITUDE MATRIX	(~+65820432
*00042095 **91108286	**49491686 **35838706	-:86894023 :20368291		00042095 49	74916868689 8838706 -2036	4023	*31397152 *62281156	*•73595643 •63649607	*59982467 •45494771
REFSMMAT ER	GIMBAL ANGLE		AGC CD				Les DR	LOS ALT	Les CR
Y= *000 Z= -*000	AIG= +55.74 AMG= 43.30	*55 * 74 43 * 30	*55 • 6 43 • 9		10.99 SDS TRUN	R ERROR	706+15	-1223 • 20	#88#66 #¥24
X= +000	A8G= 102.47	102.47	102.4	.01	145.03		2,22		
STATE VECT	RX	RY	RZ	RSS	VX	VY	V-Z-	RSS-	TIME
SDS CM AGC CM	*2760170*0 *2759004*9	5255920 • 3 5256578 • 1	*2987165 *:		-7047 • 32	*2785*20	1593.60	7743+49	2899+42
DELTA	*1165 *1	*657*9	413.		=7046 • 16 =1 • 16	#2784*13 #1*07	1592.91	7741 • 91	
SDS LM	*2760821 *4	5263106.2	~2991006,		-7041 - 12	*2791 * 95	1597 • 07	7740.99	2899:42
AGC LM DELTA	*2760822 • 5. 1 • 1	5263058 • 9	*2991038 * 31 •		=7041 * 11 = 101	-2791.96	1597 • 13	7741+00	
		_	_			_	***************************************		
POSITION	LAT	Leng	ALT	APOGEE	PERIGEE	AZIMUTH	ELEVATION		RANGE RATE
SDS CM SDS LM	*26 · 86 *26 · 87	66 • 57 66 • 55	271951 · 279632 ·		258713.9 272435.1	-175-59	69,98	8173:9	*8*06
000 411	~_64.07				61643011				
FLAGWD 0 00			2 00734 F	LAGWD 3 10004	FLAGWD 4 10000	FLAGWD 5 40208	FLAGWD 6	20000 FLAGWD	7 00100
FLAGWD 8 50 RCSFLAGS 00			42106 R	SBBQ+1 03434	CADRFLSH 56016	CADR+1 73174	CADR+2	56016 FAILRE	3 - 00000
FAILRG+1 00				IPA Y 77770	PIPAZ 00378	FLAG 10 00000			8 00120
HOLDFLAG 77				EDBCTR 00001	IMBDE 30 36001	IMBDE 33 26000	CHAN 11	01040 CHAN 12	00040
CHAN 13 40	100 CHAN 14	00000 CHAN 30	37373 C	HAN 31 37777	CHAN 32 77777	CHAN 33 67767	7		
	02:4255	CDUY +55.7		CDUZ 45.5	57129 CDU1		AD8T/	1494560	
	• 060493	AD01/084 .405			97266AK1	=1.636963	AK2	**1757812	
	02 • 3047	THETAD Y -55.3 RTARG Y 2176		THETAD Z 44.	27490 TIG	2388+540	DELLT		
	0000000	DELV Y 1000		DELY Z = 405			YACTO		
	0000000	YCMD .000	0000	CSTEER +000	00000 AD81		AD8T/	OBP =1.042380	
	4023985E=01		9063E-01		18359 AK2	* . 2197266		D X 102.3047	
THETAD Y =5	372,820	THETAD Z 44.2 PCMD .000			07942 CENT	TANG 61.50000. 1ASS .0000000	DELTA		
	3295899E+01	ERRORY714				78CR +0000000	WBaD		
	0000000	THE TAD X 102.		THETAD Y +55.		TAD Z. 44.27490	VGTIG		
	0.61211	VGTIG Z -29.0			8.571 X CC		Y CG	.3071489	
	5077438	JET FUEL 43.8		SLOSH AR =7.8		31119:44	IYY	79900 • 74	
IZZ 8	4710 • 12	IXY 2036			•1853 IYZ	1424.454	WX DE		
	5497338E = 01	WZ DEG/S .594 XGYR00UT .000	4997E=01			CM/S2 .0000000 R08UT .0000000	AYSCM		
AYSMM/S2 -			3416E+01		14711E=01		PVOLI	17 UE + 7000007E	

	PROGRAM 40	VERB 50	NOUN_25	- R	1 00204 R	2	R3	FLASH 1	DSPTA	8 +11 00000	
	200	REFERENCE 1	V. T.		toe Beer	OFLICE MATE	4.4		0.46 4.7	TITUDE MATRIX	
	SDS					RENCE MATR					
	**41222304	.79159081	**45106113				45106113		71440768	-+23408580	65941310
	00042095	+ • 49491686	86894023				86894023		31581283	#·73307204	*60238504
	**91108286	≈∘35838706	.20368291	m g	91108285 **	35838706	,20368291		62440681	•63859868	•44978452
	REFSMMAT ER	GIMBAL ANGLE	ES SDS CDU	AGC CDI	J AGC SHA	FT SDS	SHAFT		Les DR	LOS ALT	LOS CR
	Y= +000	AIG= -55.89	-55.89	=55 + 6			.99	R ERROR	710+22	-1224 + 78	*88*00
	Z= =:000	AMGE 43.51		43.3				V ERROR	1.22	-1.23	24
	X= +000	A8G= 102=81	102.81	102.7			.00	A CHICK	1455	2,12,0	- 4 2 .
	X= +000	VOR- INC. RI	105.81	10207	3 40	7 747					
	STATE VECT	Rχ	RY.	RZ			X	VY	∀-Z	RSS	TIME
	SDS CM	-2774257.2	5250335+6	=2983970=				2799 • 47	1601.74	7743+48	2901 * 42
	AGC CM	-2773089.7	5250995 • 6	-2984385	6646016	4 -703	8 • 65 •	-2798 - 40	1601:05	7741 • 90	
	DELTA	-1167.4	*660*0	414 s.	44.	3	1 • 16		*69	1.58	
	SDS LM	-2774896 . 1	52575n8 • n	-2987804°	3 6653451.	2 -702	3 • 63	~2806 + 19	1605+18	7741.01	2901:42
				*2987835							2301 445
-	AGC LM	*2774897.2	5257460.8					-2806-20	1605+24	7741-02	
	DELTA	1 = 1	47 • 3	31 •	5 22•	ŏ	01	• 02	≈ ∗ 06	# + O1	
	PASITION	LAT.	LBNG	ALT	APOGEE	- PERIC	EE.	AZIMUTH	ELEVATION	- RANGE	RANGE RATE
	SDS CM	*26 *83	66.71	271957 .	7 272808.	2 25873	33 • 7	*175 × 64	69,77	8157 . 8	-8.01
	SDS LM	*26 * 84	66 • 68	279613 •	9 281246	5 27243	32 • 1	*			
	FLAGWD 0 002	200 FLAGWD 1	cocco FLACHO	2 00724 5	LAGWD 3 10004	FLAGWD 4	10000 51	AGWD 5 40202	EL AGNO 4	20000 FLAGWD	7 02100
	FLAGWD 0 000			2 00/34 F	LAGNU 3 10004	FLAGNU, 4	10000 +	40202	LENGUE P	50000 LEVG#D	\ \del00
	RCSFLAGS 000			42106. R	SBBQ+1 n3434	CADRELSH	56016 CAL	DR+1 73174	CADR+2	50063 FAILRE	3 00000
	FAILRG+1 000				IPA Y 77767			AG 10 00000			S 00120
	HOLDFLAG 77				FDOCTR 00001			8DE 33 26000		01040 CHAN 12	
	CHAN 13 00:				HAN 31 37777			AN 33 67765	W. 17511	0.0.0	
	CHAN 15 UU.	IDO CHAN IA	00000 CHAN 30	21312 (MWW 31 31111	CHAN OF	TAXAX CM	AN .33 07763			
		02.5134	CDUY -55.5			*37402	COUT	-19.76715	ADOT,		
	ADOT/OBP:			1944E-01		197266E-01	AK1	•9118652	AK2	- • 2416992	
		02.3047	THETAD Y +55.3			•27490	TIG	2388.540	DELL.		
		163634 •	RTARG Y 2176			35646 •	TGO	-24187 · 24	PIPT:		
	DELY X *		DELV Y	0000	DELV Z **4	095000 .	PACTOFF	*2*918175	YACT	3FF 2.230150	
		0000000	YCMD *000			000000	AD8T/	•1358572	ADOT.		
	ADOT/OBY .	3692732E=01	AK 153	8086	AK1 *S	338379	AK2	-,2966309	THET	AD X 102,3047	
	THETAD Y -5	5.30518	THETAD Z 44.2	7490	ELEV -41	07942	CENTANG	61.50000	DELT	AR 117620 • 0	
		372 • 820	PCMD +000			000000	LEMMASS	.0000000	CSMM		
		2416992	ERRORY - 823		ERRORZ +3	186035	WB8D/8C	R •0000000	WBOD	/8CP .0000000	
	WBeD/ecy .		THETAD X 102+		THETAD Y -55		THETAD			G X -37 + 76913	
		0.61211	VGTIG Z -29.0		S/C MASS 17		X CG	8.466005	Y CG		
		5077438	JET FUEL 44.2		SLOSH AR #7		IXX	31119 • 44	IYY	79900 • 74	
		4710-12	1XY 2036			6 * 1853	IYZ	1424 - 454	WX_DI		E=01
		1678587		7940E-01		000000		2 **9327403E		M/S2 = 1515703	
		1410770E=02		0000		0000000	ZGYROOU		AXSM		
		14004655 00		7779~ 03	+ COMM 4CO				717(11)		

-PROGRAM 40	VERB	NOUN	R1	82	R3 · · ·	-FLASH 0	- DSPTAB +	-11 00000	
\$0\$ +41222304 -00042095 >91108286	.79159081 49491686		**#12223 *000420 **911082	95 - 49491	081 = 451061 686 = 868940	23 - 9	71086431	TUDE MATRIX 23860312 73263240 63743019	-:66161966 :60311985 :44553947
REFSMMAT ER Y= *000 Z* * -*000 X* *000	AIG= ~56 + 07 AMG= 43 + 84	SDS CDU ~56•07 43•84 102•95	AGC CDU ~55.78 43.69 102.93	AGC SHAFT -• 04 AGC TRUN • 01	SDS SHAFT 10.99 SDS TRUN 148.78	R ERROR		L8S ALT -1226:35 -1:23	L8S CR -87.35 24
STATE VECT SDS CM AGC CM DELTA	-2788329 · 2 -2787159 · 5 -1169 · 8			RSS 6645812 • 0 6646030 • 4 =218 • 4	-7 ₀ 32·25 -7 ₀ 31·10 -1·15	VY -2813.72 -2812.65 -1.07	1609.86 1609.17	RSS 7743.46 7741.89	TIME 2903•42
SDS LM AGC LM DELTA	=2788955.9 =2788957.0 1.1			6653441.7 6653418.9 22.8	-7026:10 -7026:09 -:01	-2820.41 -2820.42 -02	1613.29 1613.35 06	7741 • 03 7741 • 04 • • 01	2903.42
POSITION SDS CM SDS LM	LAT #26.80 #26.81	L0NG 66+85 66+82	ALT 271964•2 279595•0	APBGEE 272805 • 6 281266 • 8	PERIGEE 258753+4 272429+1	AZIMUTH -175.69	ELEVATION 69.56	RANGE - 8141.8	RANGE RATE
FLAGWD 0 00 FLAGWD 8 50 RCSFLAGS 00 FAILRG+1 00 H0LDFLAG 77 CHAN 13 00	0000 FLAGWD 9 0011 RCSFLAGS 0000 FAILRG+2	00000 00011 RSBBQ 00000 PIPA X 11103 DAPDATR2		1 03434 CAD 77767 PIP R 00001 IM8	RFLSH 56016 C	ADR+1 73174 LAG 10 00000 MODE 33 26000 HAN 33 67765	FLAG 11 000	063 FAILREO	7 02100 G 00000 ES 00120 2 02242
ADBT/BBP THETAD X RTARG X -6 PCMD ADBT/BBY THETAD Y THETAD Y TEVENT ERRBRX WB8D/BCY VGTIG Y -1 Z CG IZZ WY DEG/S AZSCM/S2	02.8650 .2493851 .021-3047 .163634. .0000000 .0000000 .3814772E-01 .5-30518 .3376172 .00000000 .0.61211 .5077438 .34710-12 .1853440 .6193449E-02 .3415490E-02	XGYROOUT +00000	32E=01 AK	Z **409500 **582275 **41*0734 **000000 RZ **406494 AD Y **55*3051 MASS 1788-75 46*185 15*000000 88UT **000000	5 AK1 11G 11G 11G 16G 17G 0 PACTOF 0 AD0T/ 4 AK2 2 CENIAN 0 LEMMAS 1 WB0D/8 8 THETAD 1 X CG 8 IXX 3 IYZ 0 AXSCM/ 0 ZGYR06	-2539382E- -3845215 MG 61.50000 SCR 0000000 CCR 0000000 D Z 44.27490 8.466005 31119.44 1424.454	THETAD : DELTAR CSMMASS WB0D/0C! VGTIG X Y CG IYY WX DEG/: -03 AYSCM/S:	2.230150. P.2242796 X.102.3047 117620.0 26520.00 P.0000000 =37.76913 .3071489 79900.74	E-01 E+02

PROGRAM 40.	VERB	NOUN	R1	- R2 ·	R3	FLASH-0	DSPTA	8 +11 00000	
**41222304 *00042095	EFERENCE MA' *79159081 **49491686 **35838706	TRIX ==:45106113 ==:86894023 ==:20368291	**4122 *0004 **9110	2304 •791 2095 ••494	CE MATRIX 59 ₀ 81 45 ₁₀ 6 9 ₁ 686 86894 38706 20364	023	S/C AT 70687413 31548762 63308477	TITUDE MATRI; 24278378 73243475 63607717	× •66436815 •60332942 •44114399
Y= +000 A	IMBAL ANGLES IG= -56+19 MG= +4+20 0G= 103+05	SDS CDU =56.19 44.20 103.05	AGC CDU -55.94 44.06 103.05	AGC SHAFT 04 AGC TRUN 01	SDS SHAFT 10.99 SDS TRUN 125.91	R ERROR V ERROR	L8S DR .718.46 1.22	LOS ALT -1227.90 -1.22	L0S CR -86*72 -24
	-2802386,1 -2801214+1 -1172=0	RY 5239080*7 5239745*0 =664*2	-2977531 • 1 -2977948 • 3 -417 • 2	RSS 6645827 • 8 6646044 • 2 =216 • 5	-7 ₀ 24.66 -7 ₀ 23.51	*2827*95 *2826*89	VZ 1617.98 1617.29	RSS 7743•45 7741•88 1•58	71ME 2905•42
	-2803000.5 =2803001.6	5246226*4 5246179*1 47*3	+2981351.2 =2981382.4 31.3	6653432:1 6653409:2 22:9	=7018.53 =7018.52 =:01	+2834+62 +2834+63 +02	1621:39 1621:45 -:06	7741 • 04 7741 • 05 7 • 01	2905.42
SDS CM SDS LM	LAT #26:77 #26:77	Lang. 66.98	ALT 271970 • 6 279576 • 1	AP8GEE- 272803:1 281287:2	PERIGEE 258773•3 272426•1	AZIMUTH	ELEVATION 69:35	RANGE 8125•9	RANGE RATE
FLAGWD 0 00200 FLAGWD 8 50000 RCSFLAGS 00011 FAILRG+1 00000 H0LDFLAG 77776 CHAN 13 00100	FLAGWD 9 0 RCSFLAGS 0 FAILRG+2 0 DAPDATR1 1	0000 0011 RSBBG 0000 PIPA X 1103 DAPDATRS	42106 RSBBG 00030 PIPA	0+1 03434 0 Y 77767 F	LAGWD 4 00000 CADRFLSH 56016 PIPAZ 00314 IMBDE 30 36001 CHAN 32 77777	FLAGWD 5 40202 CADR+1 73174 FLAG 10 00000 IMBDE 33 26000 CHAN 33 67765	CADR+2 FLAG 11 CHAN 11		
AD8T/88P	3222 A 3047 1634 P 16434 P 164	HETAD X 102.3 GTIG Z -29.03 JET FUEL 44.22	247E-01 AK 1518 THE 1604 RT. 1000 DEL 1000 CST 10035 AK 17490 ELE 1000 YER 1047 THE 1478 S/ 1949 SLE	-329E TAD Z 44-02 RRG Z -12356 V Z -409E TEER -0000 1 -197: V -41-0 WD -0006 RRRZ -472' ETAD Y -55-33 C MASS 1788 SSH AR -7-886	5898 AK1 490 TIG 490 TIG 5600 PACT 5539 AK2 7942 CENT 6000 LEMM 1121 W800 5518 THET 6571 X CG 6568 IXX	**3845215 2338-540 **24187-24 8FF -2*918175 / **1929179E **4614258 61*50000 AD Z ***27490 AD Z ***27490 8.*466005 31119****	THETA DELTA CSMMA WB0D/ VGTIG Y CG IYY	-4174805 ME1 2418650 FE 2+230150 0BP +1949899 D X 102.3047 R 117620-0 SC 26520+00 0C - 0000000 X -37*76913 3071489 79900*74	
IZZ 8471 WY DEG/S •188	0+12 I 3440 W 55997E+02 X	XY 2036 IZ DEG/S .000 (GYR08UT .000 IZSMM/S2 .132	133 IX 2000 Cer 2000 YG		1853 IYZ 0000 AXSC 0000 ZGYR	1424.454 M/S29327403E 88UT -0000000		G/S +1049118 I/S2 **1329155 I/S2 *4153090	E+02

pregra ^M 40 VERB	NOUN	R1 R2	- R3	FLASH 0	DSPTAB	+11-00000	
SDS REFERENCE N +1222304 .79159081 -00042095+49491686 9110828635838706	45106113 86894023	**41222304 *79; *00042095 =*49	NCE MATRIX 159081 451061 991686 868940 338706 203688	23 **	70345092 - 31589532 -	TUDE MATRI: •24571538 •73247552 •63490367	**66691923 **60306692 **43763971
REFSMMAT ER GIMBAL ANGLE Y= *000 AIG= *56.25 Z= *000 AMG= 44.49 X= *000 ABG= 103.10	ES SDS CDU AGC #56.25 #56.44.49 44.49 103.10 103	• 05 -• 04 • 42 AGC TRUN	SDS SHAFT 10.99 SDS TRUN 111.50	R ERROR V ERROR	Les DR 722:59 1:22	LOS ALT +1229 • 42 -1 • 22	L8S CR ~86.10 ~.23
STATE VECT RX SDS CM	RY	7 - 1 6645843 - 5	*7017*03 *7015*89 *1*14	*2842.18 *2841.11 -11.07	VZ- 1626:08 1625:39 -69	RSS 7743.44 7741.86 1.57	TIME 29 ₀ 7•42
SDS LM	5240543.0	0.3 6653422.4 1.4 6653399.5 1.1 22.9	*7010 • 93 -7010 • 92 *•01	*2848*\$1 *2848*82 *02	1629,47 1629,54 ~•06	7741 • 06 7741 • 07 • • 01	2907:42
POSITION LAT SDS CM #26.74 SDS LM #26.74	L8NG AL 67.12 27197 67.09 27955	6.9 272800.6	PERIGEE 258793:3 272423:0	AZIMUTH *175.78	ELEVATION 69.14	RANGE 8110+1	RANGE RATE -7,88
FLAGWD 0 00200 FLAGWD 1 FLAGWD 8 50000 FLAGWD 9 RCSFLAGS 00011 RCSFLAGS FAILR8+I 00000 FAILR8+2 HBLDFLAG 77776 DAPDATR1 CHAN 13 00100 CHAN 14	00000 00010 RSBBQ 42106 00000 PIPA X 00030 11103 DAPDATR2 11111	PIPA Y 77767	CADRFLSH 56016 (PIPAZ 00270 FIMODE 30 36001	FLAG 10 20000 [MeDE 33 26000	CADR*2 50 FLAG 11 00	0063 FAILRE	
CDUX 103.0957 ADBT/BBP -1880161 THETAD X 102.3047 RTARG X -6163634. DELV X -0000000 ADBT/BBY355392F2-03 THETAD Y -55.30518 TEVENT 2372.820 ERRBRX 3225898 WBBD/ECY -0000000 VGTIG Y -10.61211 Z CG 247438 1Z 84710.12 WY DEG/S -8595292E.01 AZSCM/S2 8161477FE-04	CDUY -55.99731 ADB1/BBY -1270697E-01 THETAD Y -55.30518 TARRY 2176504 ELV Y +0000000 AK +3186035 THETAD Z 44.27490 PCMD +0000000 ERRRY +2416992 THETAD Z 102.3047 VGTIG Z -29.01478 JET FUEL 14.34009 IXY 2036.133 MZ DEG/S *-3497057E=02 SGYR@BUY +0000000	THETAD Z 44-2 RTARG Z -1235 DELV Z -900 CSTEER 0000 AK1 -153 ELEV -41-0 YCMD 0000 ERRORZ 0505 THETAD Y -55-3 S/C MASS 1778 SLOSH AR 77-88 IXZ 246-6	6035 AK1 77490 TIG 77490 TIG 77490 TIG 646. TIG 5000 PACT81 0000 AD81/ 8086 AK2 7942 CENTA1 0000 LEMMA1 3711 W88D/ 0518 THETA1 571 X CG 63368 IXX 1853 IXX	*1231805E* *4943848 NG 61*50000 SS *0000000 D Z 44*27490 8*466005 31119*44 1424*454 /S2 *93274034	DELLT4 PIPTIME YACTBFF AD01/8E THETAD DELTAR CSMMASS WB0D/0S VGTIG Y CG IYY WX DEG/	2.230150 3P .185052 X 102,3047 117620.0 S 26520.00 P .000000 P .3071489 79900.74 /S .3497057 S2 -5759671	E=02 E=02

TAPE WEDB RUN	6 VERIFICATION C4 . 18A	TEST RUN DATE 10/23/68 B	DIT DATE 230CT68 SDS TIME	2909 AGC TIME 2839.33 ID 774 PAGE	55
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PREGRAM 40 VERB 06	N8UN 40	R1 +07 30 R2 +01	601 R3 +00000-	FLASH 0	DSPTAB +11 00400	
SDS RÉFERENCE	-: 451g6113 86894023	AGC REFERENCE =:41222304 .79159 .0004209549491 9110828535838	081 =:45106113 686 =:86894023		69973266053	X 66823030 -60265732 -43620133
REFSMMAT ER GIMBAL ANGLI Y= *000 AIG= *56*25 Z= *000 AMG= 44*62 X= *000 A9G= 10 ³ *09	-56-2556	.0604 .57 AGC TRUN		LOS D ERRÓR 724 ERROR 1	.651230:18	L8S CR =85.80
STATE VECT RX SDS CM	RY 5230564.9 -297265: 5231232.3 -297307: +667.4 41	9.0 6645851.4		1849 • 28 1630 1848 • 21 1629		71ME 29 ₀₈ •42
SDS LM =2824039.0 AGC LM =2824040.0 DELTA 1.0	5237643.2 -297649			2855.90 1633 2855.91 1633 .02		2908+42
P881TIBN LAT SDS CM #26.72 SDS LM #26.73	67 • 19 27198	0 • 1 272799 • 3			TIBN RANGE 8:03 8102:3	RANGE RATE ⇒7.86
FLAGWD 0 00200 FLAGWD 1 FLAGWD 8 50000 FLAGWD 9 RCSFLAGS 00010 RCSFLAGS FAILRG+1 00000 FAILRG+2 H0LDFLAG 77776 DAPDATR1 CHAN 13 00100 CHAN 14	00002 00010 RSBEQ 42106 00000 PIPA X 00030 11103 DAPDATR2 11111	PIPA Y 77767 PIP REDOCTR 00001 IME	DRFLSH 56016 CADE	R+1 73174 CADE 3 10 20000 FLAG DE 33 26000 CHAN	R+2 50063 FAILRE S 11 00000 8PTM80	7 02100 G 01703 ES 00120 2 02242
CDUX 103*1396 AD8T/8BP *3897921E-01 THETAD X 102*3047 RTARG X *6163634* DELV X *0000000 PCMD *00000000 AD8T/8BY *1167432E-01 THETAD Y *55*30518 TEVENT 2372*820 ER88X *3186035 WB8D/8CY *0000000 VGT16 Y *10*61211 Z CG *5077438 IZZ 84710*12 WY DEG/S *6994114E-01 AZSCM/S2 *1515703E-02 AYSMM/S2 *5849934E-03	CDUY -56.04126 ADBI/BBY -1341776E-01 THETAD Y -55.30518 RTARG Y 2176504. DELV Y -0000000 YCMD -0000000 AK +3186035 THETAD Z 44.27490 PCMD -0000000 ERRORY -3625488 THETAD X 102.3047 VGTIG Z -29.01478 JET FUEL 44.33923 IXY 2036.133 WZ DEG/S -1398823E-01 XGYROBUT -0000000	THETAD Z 44*274° RTARG Z 123564° DELV Z -*40950° CSTEER 000000° AX1 -32958° ELEV 41*0791′ YCMD 000000° ERRBRZ 49438′ THETAD Y -55*305° S/C MASS 1788.5° S/C MASS 1788.5° LXZ 246*181° C@NFIG 1 000000° YGYRBBUT 0000000°	AK1 TIG TIG TIG TIG TIG TIG TIG TIG TIG TIG	44.27490 8.466005 31119.44 1424.454 9327403E=03	AD8T/ AK2 -494384 PLLLT4 1199-65 PIPTIME1 2418-58 YACTBEF 2-23015 CT 102-304 PLLTAR 11762-00 PLLTAR 11762-00 VGTIG X -000000 VGTIG X -7691 Y CG 3071481 IYY 79900-7 KX DEG/S -349705 AYSCM/S2 -123588 AXSMM/S2 -345182	E=01

pREGRAM 40 VERB 06	NOUN 40-	R1 +07 32 - R2 +0	01601 -R3-+006	000 - FLASH 0	- DSPTAR-	+11 00400	
,				TEAGH 0			
SDS REFERENCE ++41222304 +79159081		AGC REFERENCE ** 41222304 ** 791	DE MATRIX 59081 ~.451061	13		TUDE MATRIX	~+669n5785
*00042095 = 49491686	= +5100113 = +86894023	***1222304 ***4945 ***4945				•24729848 •73283005	**6690578B *60235095
**************************************		**************************************				.6338799n	·43535614
##338387U8	\$20300271		20/00 4503005		03320050	103307270	*43030014
REFSMMAT ER GIMBAL ANGL			SDS SHAFT		Les DR	LOS ALT	LOS CR
Y= +000 AIG= +56+24	* 56 * 24 * 56		10.99	R ERROR	728:79	+1231 = 68	#85·21
Z=000 AMG= 44.71			SDS TRUN	V-ERROR-	1 + 23	-1.21	
X# +000 A8G* 103+08	103.08 103	•14 •01	178+33				
STATE VECT RX	RY RZ-	RSS	- VX		V-Z	RSS	TIME
SDS CM -2837461.7	5224852 1 = 296939		-7005-51	=2863·48	1638 * 23	7743 42	2910.42
AGC CM #2836283.9	5225521.7 -296981	1 • 2 6646078 • 7	-7004·38	72862 • 41	1637.54	7741 * 85	
DELIA *1177.7	-669+6 42	0.6 -211.6	-1 - 1 4	-1-07	+69	1.57	
SDS LM #2838n45.6	5231964.7 =297319	3.7 6653408:0	~6999 · 45	*2870*07	1641,59	7741.08	2910.42
AGC LM =2838046 • 6	5231917.42 +297322		*6999*44	*2870*08	1641 * 66	7741 • 09	E>1044E
DELTA 1.0		0.9 23.0	= • 01	+02	7:06	= + 01	
-					- # 00		
POSITION LAT	LBNG. AL		PERIGEE	AZIMUTH	ELEVATION -		RANGE RATE
SDS CM -26.69			258823.3	-175-85	68 * 82	8086 • 6	-7.82
SDS LM -26.70	67.30 27952	8.5 281338.5	272418 • 4				
FLAGND 0 00200 FLAGND 1	00000 FLAGWD 2 00734	FLAGWD 3 10004 F	LAGWD 4 00000 F	FLAGWD 5 40202	FLAGWD 6 20	000 FLAGWD	7 02100
FLAGWD 8 50000 FLAGWD 9	00002				-		
RCSFLAGS 00010 RCSFLAGS				CADR+1 73174		063 FAILREG	
FAILRG+1 00000 FAILRG+2				FLAG 10 20000			\$ 00120
HOLDFLAG 77776 DAPDATR1				IMBDE 33 56000	CHAN 11 01	.022 CHAN 12	02242
CHAN 13 00100 CHAN 14	00000 CHAN 30 37373	CHAN 31 37777 C	HAN 32 77777	CHAN 33 67765	*		
CDUX 103:1506	CDUY -56.05225	CDU7 44+63	745 CDUT	+19.76715	ADOT/	•3775210E	:=02
AD0T/00P .4595295E-01	AD0T/0BY 9930879E-02		035 AK1	3955078	AK2	- +4943848	-
THETAD X 102:3047	THETAD Y -55.30518	THETAD Z 44.27		2388.540	DELLT4	1139 . 650	
RTARG X =6163634.	RTARG Y 2176504+	RTARG Z -12356		#24187 ± 24	PIPTIME		
DELV X •0000000	DELV Y .0000000	DELV Z 4095			YACTOFF		
PCMD +0000000	YCMD •0000000	CSTEER +0000					-01
AD8T/8BY8187444E-02	AK3186035	AK14504		4943848	THETAD		
THETAD Y =55.30518	THETAD Z 44.27490 PCMD .0000000	ELEV -41.07 YCMD +0000			DELTAR		
ERRORX +3186035	ERRORY *4614258	ERRBRZ +4943			WB8D/80		
WB8D/8CY *000000	THETAD X 102.3047	THETAD Y -55,30			VGTIG		
VGTIG Y =10:61211	VGTIG Z -29.01478	S/C MASS 1788.		8.466005	Y CG	.3071489	
Z CG •5077438	JET FUEL 44.37512	SI 0SH AR -7.886		31119.44	IYY	79900.74	
IZZ 84710·12	IXY 2036:133	IXZ 246.1		1424.454		S 3497057E	50-3
WY DEG/S -1049118E-01	WZ DEG/S 1049118E=01	CONFIG 1:000	000 AXSCM	/S2 * · 9327403E	-03 AYSCM/S	2 -,12358818	1-05
AZSCM/S2 •5922901E=02	XGYR88UT .0000000	YGYROOUT .0000		O000000	AXSMM/S	32 +3898745E	1=02
AYSMM/S24581843E-02	AZSMM/S2 .1253558E-02	ARSMM/S2 .6145	315E~02				

PROGRAM 40 VERB 5	Naun 9	R1 01703 R2 0	20000 83 00000	EL 4611 0	-DSPTAB +11 00400 -	
PROGRAM 40 VERB 5	NOUN D	K1 01/03 KC (30000 R3 -00000	TEASH U	DSP AB +11 00+60	
SDS REFERENCE M.	ATRIX	AGC REFERENC	CF MATRIX	S	C ATTITUDE MATRIX	
41222304 - 79159081	45106113 -	·41222304 ·7915	59081 = +45106113	= 17004	725924743891	-*66941190-
.0004209549491686	86894023	.000420954945	91686 - 86894023	**3164		•60211396
9110828635838706	,20368291 -	91108285 - 3583	38706 +20368291	4 = +6396	6846 +63362193	+43513894
REFSMMAT ER GIMBAL ANGLE	S SDS CDU AGC C	DU AGC SHAFT	SDS SHAFT	Les	DR LOS ALT	LOS CR
Y= +000 AIG= +56+23	. =56+23 =56+	05 ** 04		R ERROR .73	2:93 =1233:16	-84:63
_ ZE ==000 AMG# 44+74	-44.74 - 44.		SDS TRUN	V ERROR	1.23 -1.20 -	F • 23
X= .000 ABG= 103.06	103.06 103.	12 *01	126.28			
STATE VECT RX	RY RZ		∀ X		vz RSS	-TIME-
SDS CM -2851465.0	5219111.0 -2966106				6.31 7743.41	2912.42
AGC_CM =2850285.0	5219782.7 -2966528				5 • 62 7741 • 84	
DELTA =1180+0	*671*7 422	*0209*7	=1=13	1-07	• 69 1 • 57	
SDS LM -2852n36.8	5226210+4 -2969902	•4 6653398•3	100. 75	0001 00		
					9 • 66 7741 • 10	2912.42
AGC LM = 2852037.8	5226162.9 -2969933				9.72 7741-11	
DELTA 1.0	47.5 30	•8 23*1	- < 01	• 02	06 01	
POSITION. LAT	LONG. ALT	APOGEE	PERIGEE	AZIMUTH ELEV	ATION RANGE	RANGE - RATE
SDS CM #26+66	67:46 271992				8 • 61 8071 • 0	*7.77
SDS LM =26.66	67.43 279509		272415+3	-1,2,02	9.01	-/4//
20100	. 07-43 273003	20100312	2,2,10,0			
FLAGWD 0 00200 FLAGWD 1	00000 . FLAGND 2 00734	FLAGWD 3 10004 F	LAGWD 4 00200 FLA	GWD 5 40202 FLA	GWD 6 20000 FLAGWD	7 02100
FLAGWD 8 50000 FLAGWD 9						
RCSFLAGS 00011 RCSFLAGS			ADRFLSH 56016 CAD			
FAILRG+1 00000 FAILRG+2					G 11 00000 OPTMODE	
HOLDFLAG 77776 DAPDATR1					N 11 01020 CHAN 12	02242
CHAN 13 00100 CHAN 14	.0.0.000 CHAN 30 37373	CHAN .31 37777 C	HAN 32 77777 CHA	N. 3367765		
400 4007	601	C-11-	to/ CDUE	10 7/7/5	1000	
	CDUY +56+04126	CDUZ 44.71 AK3076		-19.76715 -:4724121	AD0T/ ==6034971E	= 04
	AD8T/88Y6444008E-02 THETAD Y -55.30518	AK 3076 THETAD Z 44.27		2879 • 890	DELLT4 1139 650	
	RTARG Y 2176504+	RTARG Z =12356		*24187 *24	PIPTIME1 2849:930	
	DELV Y +0000000	DELV Z ++4095		~2.918175	YACTBEE 2.230150	
	YCMD •000000	CSTEER +0000		→•1978130E-02	AD01/88P 4781038E	
	AK ~.3076172	AK14833		-,4724121	THETAD X 102,3047	-02
THETAD Y -55.30518	THETAD 7 44.27490	ELEV -41:07		61.50000	DELTAR 117620+0	
TEVENT 2372.820	PCMD +0000000	YCMD .0000		•0000000	CSMMASS 26520:00	
	ERRORY .4943848	ERRORZ +4724			WB0D/8CP .0000000	
W88D/8CY .0000000	THETAD X 102+3047	THETAD Y +55+30		44.27490	VGTIG X -37.76913	
VGTIG Y -10.61211	VGTIG Z -29.01478	S/C MASS 1788.	571 X CG	8.466005	Y CG .3071489	
	JET FUEL 44.37463	SLOSH AR =7 :886		31119.44	IYY 79900.74	
IZZ 84710 - 12	IXY 2036 • 133	IXZ 246.1	853 IYZ	1424 • 454	WX DEG/S -+6994114E	-02
WY DEG/S .1398823E-01	WZ DEG/S +0000000	CONFIG 1:000		9327403E-03	AYSCM/S2 -: 1422429E	
AZSCM/S2 .6016175E=02	XGYR88UT .0000000	YGYRBBUT .0000		*0000000	AXSMM/S2 .4084054E	-05
AYSMM/S2 4614544E-02	AZSMM/S2 .1169987E-02	ARSMM/S2 ,6272	350E-02			

PREGRAM 40 VERE	NBUN	R1 - 999	9 82 -99999	R3 9	FLASH 0	DSPTAB +	11 00000	
SDS REFERENCE ***41222304 **79159081 **00042095 ***49491686 ***91108286 ***35838706	**45106113 **86894023	AGC 412223g -0004209 9110828	479159081 549491686	86894023	0.0	70021415	UDE MATRIX 24750113- 73322320 63334537	-+66965938 •60187173 +43509340
REFSMMAT ER GIMBAL ANGL Y= *000 AIG= *56*22 · Z= **000 AMG= 44*76 X* *000 AGG= 103*04	-56 · 22 44 · 76	=56 · 04	# 04 AGC TRUN		R ERROR V ERROR	L8S DR 737:07 1:23	LOS ALT *1234.63 -1.20	L8S CR -84.06 23
STATE VECT RX SDS CM -2865452*8 AGC CM -2864270*5 DELTA *1182*3	5214015.3 -2	962805 + 4 66			2891*83 2890*76	VZ 1654:39 1653:70 +69	RSS 7743•39 7741•83 1•57	71ME 2914+42
SDS LM *2866012.5 AGC LM -2866013.5 DELTA 1.0	5220380+3 -2				2898:36 2898:38 •02	1657:72 1657:78 -:06	7741*11 7741*13 =•01	2914.42
PESITION LAT #26.63 SDS LM #26.63		271998 • 6 2	72791.5 25		AZIMUTH. *175*94	ELEVATION 68,40	RANGE- 8055•5	RANGE RATE
FLAGWD 0 00200 FLAGWD 1 FLAGWD 8 50000 FLAGWD 9 RCSFLAGS 00011 RCSFLAGS FAILRG+1 00000 FAILRG+2 HGLDFLAG 77776 DAPDATRI CHAN 13 00100 CHAN 14	00011 RSBBQ 4 00000 PIPA X 11103 DAPDATR2 1	12106 RSBBG+1 00030 PIPA Y	03434 CADREL 77766 PIPAZ 00001 IMODE	SH 56016 CAD 00132 FLA 30 36001 IMB	GWD 5 40202 R+1 73174 G 10 00000 DE 33 26000 N 33 67765	FLAGWD 6 200 CADR+2 501 FLAG 11 000 CHAN 11 010	45 FAILREG	
CDUX 103.1067 ADBT/8BP +4492701E-03 THETAD X 102.3047 RTARG X -6163634. DELV X .0000000 ADBT/6BY -6444008E-02 THETAD Y -55.30518 TEVENT 2372.820 ERRBRX 2856445 WBBD/6CY .000000 VGTIG Y -10.61211 2 CG .5077438 1ZZ 84710.12 WY DEG/S .1049118E-01 AZSCM/22 .616175E-02 AYSMM/SZ4614544E-02	CDUY	DBE-02 AK 18 THETAD 10 DELV Z 00 CSTEER 09 AK1 190 ELEV 1007 YCMD 178 S/C MA 102 SHEER 103 S/C MA 103 CONFIG 100 CONFIG 100 CONFIG 100 CONFIG 100 YGYROO	Z = 1235646 - 1095000 - 10000000 - 116357 - 44:07942 - 0000000 - 114:58 - 0000000 - 1788:571 - 18638 - 246:1853 - 1000000 - 10000000 - 10000000	CDUT AK1 TIG TGE PACTGFF AOBT/ AK2 CENTANG LEMMASS WB6D/6CR THETAD Z X CG IXX IYZ AXSCM/S2 ZGYRGGUT 02	4418940E 4614258 61-50000 -000000 44-27490 8.466005 31119.44 1424-454 9327403E	THETAD : DELTAR CSMMASS WB6D/6CI VGTIG X Y CG IYY WX DEG/	2.230150 2.9649247E 102.3047 117620.0 26520.00 .000000 .37.76913 .3071489 79900.74	-02 -02

PROGRAM 40 VE	RB NOUN	R1	R2	R3 FLASH	- 0 DSPTAB	+11 00 000	
41222304 *791 *00042095 -*494	NCE MATRIX 59081 **45106113 91686 **86894023 38706 *20368291	AG *412223 *000420 ***911082	04 •79159081 95 ••49491686	RIX =-45106113 86894023 -20368291	7-0009589 31627536	.7334 616 .	66977692 60164976 43522000
REFSMMAT ER GIMBAL . Y= .000 AIG=.= . Z= .000 AMG= X= .000 A8G= 1	44.77. 44.77	AGC CDU +56.04 .44.79 103.07	04 . 1 -AGC TRUN SE	SHAFT 0.99 R ERRÖR S TRUN V ERRÖR 9.25	Les DR 741*22. 1*23	LOS ALT -1236:07 -1:19	L6S CR -83:50 +:23
AGC CM -2878	RY 425 • 1 5207543 • 7 240 • 6 5208219 • 6 184 • 5 = 675 • 9		645913.9 -69	VX 82.22 =2905.98 81.10 =2904.91 -1.13 =1.06	1662 • 45 1661 • 76 • 69	RSS 7743:38 7741:82 -1:56	2916.42
	972.8 5214617.0 973.7 5214569.4 1.0 47.5			76.23 *2912.48 176.22 *2912.50 *02	1665.77 1665.83	7741 • 13 7741 • 14 • • 01	2916.42
POSITION SDS CM	LAT LONG •26 • 60 67 • 73 •26 • 60 67 • 71	ALT 272004+6	Ap8GEE PER 272788 9 2588		ELEVATION 68.19		AIGE RATE
FLAGWD 8 50000 FL/ RCSFLAGS 00011 RCS FAILRG+1 00000 FA HOLDFLAG 77776 DAI	AGWD 9 00000 SFLAGS 00011 RSBB0 (LRG+2 00000 PIPA)	R2 11111 REDOCTR	. 03434 CADRFLSH 77766 PIPAZ 8 00001 IMODE 30	1 56016 CADR+1 731 00077 FLAG 10 000 0 36001 [MBDE 33 260	.74 CADR+2 50 000 FLAG 11 00 000 CHAN 11 01	0000 FLAGWD 7 0145 EAILREG 0000 BPTM8DES 0000 CHAN 12	00000
CDUX 103.0957 ADBT/BBP -9320677; THETAD X 102.3047 RTARG X -6163634. DELV X .0000000 PCMD .0000000 ADBT/BBY -5520977; THETAD Y -55.30518 TEVENT 2372.825 BBBD/GCY .0000000 VGTIG Y -10.61211 Z CG .5077438 1ZZ WY DEG/S .6994114	COUY -56 AD8T/0BY -56 THETAD Y -56 RTARG Y 21 DELV Y -00 YCMD -00 E-02 AK2 THETAD Z 44 PCMD -00 ERR8RY -51 THETAD X 100 VGTIG Z -29 JET FUEL 44 IXY	01929 CDUZ 44008E-02 AK. 30518 THETA 6504* RTARG 100000 DELV 100000 DELV 100000 CSTEE 127490 ELEV 100000 YCMD 193164 ERRS 233647 THETA 101478 S/C h 338684 SLOS 16*-133	44.78027 -2856446 32 *1235646. 2 *1235646. 2 *1235646. 2 *595000 8 *0000000 -5493164 -41:07942 *0000000 *5504395 AD Y *55.30518 MASS 1788.571 4 AR *7.888.6368 246:1853	CDUT -19-7671 AK1 -15-27342 TIG 2879-83 TG0 -24187*2 PACTBFF -2-91817 AD017 -529054 AK2 -46142E CENTANG 61-5000 LEMMASS -000000 THETAD Z 44-274 X CG 8-4660 1XX 31119*1 1YZ AXSCM/S2* -932744	17 AK2 10 DELLT4 10 PIPTIME 15 YACTOFF 16 AD01/08 18 THETAD 10 DELTAR 10 CSMMASS 10 WB0D/00 10 VGTIG X 17 CG 14 IYY 15 WX DEG/64	2.230150 BP -:1103059E= X 102.3047 117620.0 26520.00	01
AZSCM/S2 +6482545	E-02 XGYROOUT .OF	000000 YGYR	0000000 +0000000 +00000000 +0000000000	ZGYROOUT +000000	OO AXSMM/S	62 .4145823E	105

program 40 VERB	NAUN	R1 R2	R3	FLASH 0	DSPTAB +11 0000	00
SDS REFERENCE .79159081 .00042095 .4949494686 .35838706	45106113 86894023	AGC REFERENC **412223047915 **00042095*4949 **91108285*3583	168686894023	**31	S/C ATTITUDE MA 9860102476537 6021447338137 056706 -6326007	7266997290 76 +60137105
REFSMMAT ER GIMBAL ANGLI Y= *000 AIG# *56*22 Z= **000 AMG# 44*78 X= *000 ABG* 102*99	-56.22 -56. . 44.78 - 44.	03 == 04 79 AGC TRUN			S DR L0S AL1 745*37 -1237*5 1*23 +1*1	50 *82*96
STATE VECT RX SDS CM *2893381.7 AGC CM *2892194.9 DELTA *1186.8		•7 6646133•2			VZ RSS 670*51 7743*3 669*82 7741*8	37 2918•42 81
SDS LM	5208730+3 +2959968			2926.59 1	673 • 81 7741 • 1 673 • 87 7741 • 1 -•06 790	15 2918.42
PRSITION LAT SDS CM		0.6 272786.3	PERIGEE 258904.4 272405.9	AZIMUTH EL +176.02	EVATION RANGE 67.97 8024	
	00000 00011 RSBbQ 42106 00000 PIFA X 00031 11103 DAPDATR2 11111 00000 CHAN 30 37373	RSBBQ+1 03434 CA PIPA Y 77766 PI REDGCTR 00001 IM CHAN 31 37777 CH	DRELSH 56016 CAD PAZ 00041 FLA BDE 30 36000 IM8 AN 32 77777 CHA	R+1 73174 C G 10 00000 F DE 33 26000 C N 33 67765	ADR+2 50145 FAI LAG 11 00000 6PT HAN 11 01000 CHA	AGWD 7 02100 ILREG 00000 TMBDES 00120 AN 12 02242
CDUX 103.0627 ADB1/BBP -758.37138-02 THETAD X 102.3047 RTARG X -6163634. DELY X -0000000 PCMD -0000000 ADB1/BBY -3131480E-02 THETAD Y -55.30518 TEVENT 2372.820 ERRBX -252.820 ERRBX -0000000 VGT1G Y -10.61211 Z CG -5077438 1ZZ 84710.12	CDUY -56.01929 AD8T/BBY -4177541E-02 THETAD Y -55.30518 RTARG Y -0000000 YCMD -00000000 AK -2526855 THETAD Z 44.27490 PCMD -0000000 ERRGRY -5493164 THETAD X 102.3047 VGTIG Z -29.01478 JET FUEL 44.38623 IXY 2036-133	CDUZ	19 AK1 90 TIG 6+ TG9 00 PACTBFF 00 AD8T/ 64 AK2 42 CENTANG 00 LEMMASS 95 WBBD/6CR 18 THETAD 2 71 X CG 68 IXX	-19.76715 -5493164 2879.890 -24187.24 -2.918175 -8080155E=02 -4504395 -61.50000 -0000000 -0000000 -4.27490 8.466005 31119.44 1424.454	AK24504 DELLT4 1139 PIPTIME1 2849 YACTOFF 2.23C AD0178BP -301C THETAD X 102,3 ELITAR 11768 CSMMASS 2652C W80C/8CP .000C YGTIG 2 .3071 Y CG .3071 I Y .7990C	*650 *930 0150 0780E*02 3047 20.0 0.0 0900 6913
WY DEG/S •2098235E •01 AZSCM/S2 •4791953E •02 AYSMM/S2 ••2496214E •02	WZ DEG/S -:3497057E*02 XGYR88UT :0000000 AZSMM/S2 :1918488E*02	CONFIG 1:0000 YGYROOUT :00000	00 AXSCM/SZ	.8861033E+03	AYSCM/52 **1142	2118E=01 2607E=02 6913E=02

SDS REFERENCE MATRIX AGC REFERENCE MATRIX S/C -+41222304 +79159081 -+45106113 -+4522304 -79159081 -+45106113 -+6977721 -00042095 -+49491686 -+86894023 +00042095 -+9494916868689402331565589110828635838706 -203682919110828535838706 -203682916608422	773423243 .60105085	5
REFSMMAT ER GIMBAL ANGLE SDS CDU AGC CDU Y= 0000 AIG= -56+21 -56+21 -56+03 Z= -0000 ANG= 44+79 -44+79 X= 0000 ANG= 102+95 102+95 103+03		
STATE VECT RX RY RZ RSS VX VY VZ SDS CM -2406540.8 5385133.9 -3061116.8 6645415.1 -7221.27 *2427.05 1389.4 AGC CM -2405890.0 5385606.0 -3061430.0 6645706.3 -7219.77 *2426.41 1388.9 DELTA -650.8 -472.1 31342 -291.2 -1.50 -64	2 7743•89 2849•9 9 7 7742•20	
SDS LM	0 7741 • 18	2
P8SITI8N LAT L8NG ALT AP8GE PERIGEE AZIMUTH ELEVATI SDS CM #26.53 68.01 272016.5 272655.2 259052.8 *.02 3.2 SDS LM #26.54 67.98 279432.4 281442.9 272402.7		
FLAGWD 0 00200 FLAGWD 1 00001 FLAGWD 2 00734 FLAGWD 3 10004 FLAGWD 4 00000 FLAGWD 5 40202 FLAGWD 8 50000 FLAGWD 9 00000 FLAGWD 9 00000 FLAGWD 9 00000 FLAGWD 9 00000 FLAGWD 9 00000 FLAGWD 9 000000 FLAGWD 9 00000 FLAGWD 9 00000 FLAGWD 9 00000 F	50145 FAILREG 00000 1 00000 0PTM0DES 00120	
ADBT/88P -:1616031E-02 ADBT/88Y -:3131480E-02 AK2416992 AK15543164 AK THETAD X 102*3047 THETAD Y -55*30518 THETAD Z 44*27490 TIG 2879*890 DE RTARG X *6163634* RTARG Y 2176504* RTARG Z *1236646* TG0 *-24187*24* PI DELV X 1*462500 DELV Y **5265000 DELV Z 1*3930500 PACTBFF *2*918175 YA DELV X 1*462500 DELV Y **5265000 DELV Z 1*3930500 PACTBFF *2*918175 YA DELV X 1*462500 DELV X **5265000 DELV Z 1*3930500 PACTBFF *2*918175 YA DELV X 1*5630518 THETAD X **563027 AK2 *-*5504395 THETAD X **55*30518 THETAD X 4*27490 ELEV **41*07942 CENTANG 61*50000 DE RR8RX *2087402 ERR8RY *5603027 ERR8RZ *4504395 WB0D/8CR *0000000 CS ERR8RX *2087402 ERR8RY *5603027 ERR8RZ *4504395 WB0D/8CR *0000000 CS WB0D/8CR *0000000 THETAD X 102*3047 THETAD X **4504395 THETAD Z 4*27490 YGTIG Y **11*28292 YGTIG Z **28*63350 S/C MASS 1788*571 X CG 8*466005 Y Z CG *5077438 JET FUEL 44*39917 SLOSH AR *7*886368 IXX 31119*44 IX IXZ 84710*12 IXY 2036*133 IXZ 246*1853 IYZ 1424*454 WX IXZ 246*1853 IXZ 1424*454 WX IXZ 246*1853 IXZ 1424*454 WX IXX 20000000 AXSCM/S2 **0000000 AXSCM/S2 **00000000 AXSCM/S2 **00000000 AXSCM/S2 **00000000 AXSCM/S2 **00000000 AXSCM/S2 **00000000000000000000000000000000000		

TAPE WEDB RUN 6	VERIFICATION C4,18A	TEST	RUN DATE 10/23/68	EDIT DATE 2	238CT68 SDS TIM	E 2923 AGC TIME	2853,27 ID 774	PAGE 62
>								
PROGRAM 40.	VERB 06 NOUN 4	0	R1 =00 27	82 +01642	R3. +00061	FLASH A DEDTAR	.11 00000	

PROGRAM 40. VE	RB 06 NBUN 40	R1 -0	0 27 R2	+01642 R3	+00061 FLASH	O DSPTAB	3 +11 00000	
		***4122 ***0004 ***9110	2304 • 75	9491686 **86	894023		TITUDE MATRI 24760079 73470283 -63158894	X **67000437 *60072756 *43614221
REFSMMAT ER GIMBAL Y= *000 AIG= * Z= *********************************	56 • 21 = 56 • 21 44 • 78 44 • 78	AGC CDU *56.03 44.81 102.99		···· :				
AGC CM =2420	979.4 5380269.5	RZ -3058328 *8 <3058644 * 0 315 * 2	RSS 6645435.7 6645722.3 *286.6	-7219.63 -7211.51	-2440:36	1399.63 1396.92 2.71	RSS 7746.06 7740.32 5.73	2851,94
SDS LM #2921 AGC LM -2921 DELTA		*2953221:6 *2953251:7 30:2	6653349.9 6653326.5 23.4	-6952 · 70	+2954+68 -2954+70 +02	1689.82 1689.89	7741 • 18 7741 • 19	2922:41
	LAT L8NG	ALT 272022 • 3 279413 • 1	AP0GEE 272656.6 281463.9	PERIGEE . 259071+4	AZIMUTH.	ELEVATION 3+20	RANGE 543442+8	RANGE RATE
FLAGWD 8 50000 FLA RCSFLAGS 00001 RCS FAILRG+1 00000 FAI	GWD 9 00000 FLAGS 00001 RSBBQ LRG+2 00000 PIPA X DATR1 11103 DAPDAT	2 00734 FLAGW 42106 RSBBQ 77777 PIPA R2 11111 REDBC 0 37373 CHAN	+1 03434 Y 77777 TR 00001	CADRFLSH 5601 PIPAZ 7773 IMBDE 30 3600	6 CADR+1 7317	4 CADR+2 5 0 FLAG 11 0	50145 FAILRE	G 00000 ES 00120
CDUX ADDT/BBP2582297E THETAD X 102-3047 RTARG X -6163634- DELY X -0000000 ADBT/BBY1522387E THETAD Y -55-30518 TEVENT 2372-820 ERRORX -1757812 WBED/GCY -000000 VGTIG Y -11.97472 Z CG 5077436 1ZZ 84710-12 WY DEG/S -348765278 AZSCM/SE -48852278 AYSMM/SE3142977E	-01 ADBİJOBY -391 THETAD Y -506 RTARG Y 217 DELV Y -00 YCMD -00 AK -18 THETAD Z 44+ PCMD +00 ERRORY -57 THETAD Z 102 VGT1G Z -28+ JET FUEL 44+ LY 203 -01 WZ DEG/S +34 -02 XGYRROUT +00	30518 THE 6504 RT A COORD COORD CST 667676 AK1 27490 ELE 600000 TCM 12891 ERR 3047 THE 24030 S/C 42078 SLB 64:133 IXZ 905757E=02 CSN 00000 YGY		5646* T9 72000 PA 00000 AD 12891 AK 07942 CE 004395 WB 30518 TH 84,571 X 86368 IX *1853 IY	15712891 0 2879.890 0 24187.24 CTBFF -2.918175 00F/ -1418219 2 -4504955 NTANG 61.50000 MMASS .0000000 ETAD Z 44.27490 CG 8.466005 X 31119.44	AKZ DELLT* PIPTI* YACTOB E=01 AD01/C THETAC DELTAC UBDD/C VGTIG Y CG IYY WX DEC AYSCM	- * 450 4395 ME1 2851 * 340 FF 2 * 2730150 BBP - * 1937226 D X 102.3047 R 117620 * 0 BCP * 0000000 X * 11 * 23520 * 0 3071 * 189 79900 * 74 6/5 * * 2797646 /52 * * 1608977	E=01 E=01 E=02

PROGRAM 40	VERB 06	NBUN 40	R1 =00	25 R2 +	01686 R3 +00	125 FLASH O	DSPTAB	11 00000	
SDS ,41222304 •00042095 ,91108286	REFERENCE 79159081 49491686 35838706	'ATRIX -:451c6113 -:86894023 :20368291	A **+1222 *00042 -•91108	30479 ₁ 095494		023	7,0052218	TUDE MATRIX •24707127 •73518515 •63123465	66949558 -60045791 -43729281
REFSMMAT ER Y= *000 Z# *000 X= *000	AIG=. ~56.20 AMG= 44.73	SDS CDU -56:20 -44:73 102:85	AGC CDU -56.03 44.77 102.95						
STATE VECT SDS CM AGC CM DELTA	-2435405.2 -2434736.0 -669.2	RY 5375376*5 5375846*0		R68 6645456.6 6645737.7 =281.2	*7208*14 *7203*16 *4.98	-2456 • 04 -2454 • 27 -1 • 77	1406.58 1404.86 1.73	RSS 7743.89 7738.38 -5.51	TIME 2853:94
SDS LM AGC LM DELTA	*2935587.6 *2935588.6	5191121·3 5191073·6 47·7		6653340 • 1 6653316 • 7 23 • 4	-6944:79 -6944:78	=2968.74 =2968.76 •02	1697 • 83 1697 • 90 • 07	7741 • 20 7741 • 21 • • 01	2924•41
POSITION SDS CM SDS LM	-26.47	68.28 68.25	272028 • 1 279393 • 7	AP8GEE 272662 • 8 281485 • 1	PERIGEE 259088 • 6 272396 • 2	SO	S.SO	RANGE - 543417.5	RANGE RATE
FLAGWD 0 00 FLAGWD 8 50 RCSFLAGS 00 FAILRG+1 00 HOLDFLAG 77 CHAN 13 00	000 FLAGWD 9 001 RCSFLAGS 000 FAILRG+2 776 DAPDATR1	00000 00001 RSBBG 00000 PIPA X 11103 DAPDATR	77777 PIPA Y	1 03434 C 77777 F R 00001 I	ADRELSH 56016 IPAZ 77734 MeDE 30 36000	FLAGWD 5 40202 CADR+1 73174 FLAG 10 00000 IMBDE 33 26000 CHAN 33 67765	CADR+2 50 FLAG 11 00 CHAN 11 01	145 FAILRE	7 02140 G 00000 ES 00120 2 02242
ADBT/BBP THETAD X 1 TATARG X ** DELV X PCMD ADBT/BBY THETAD Y -5 TEVENT ERRBRX WBBD/BCY VGTIG Y -1 Z CG IZZ WY DEG/S **	372.820 1428223 0000000 2.70847 5077438 44710.12 .2447940E=01	WZ DEG/S .000	2387E-02 AK 0518 THET 504* RTAR 0000 DELV 0000 CSTE 8086 AK1 7490 ELEV 0000 YCM 3574 ERRE 30*7 THET 2335 S/C 2004 SL05 *133 IXZ 0000 C6NK		949 AK1 490 T18 464 T68 500 PACT 6000 AD8T 6617 AK2 942 CENT 0000 LEMM 395 W88D 1518 THET 571 X C6 3668 IXX 8853 IYZ	1662300E 4394531 ANG 61*50000 0000000 /6CR0000000 AD Z 44*27490	THETAD DELTAR CSMMASS WB6D/6C VGTIG X Y CG IYY WX DEG/	2-230150 P4665033 102-3047 11762040 26520-00 P -0000000 -41*23354 -3071489 79900-74 S24*7940	E=01 E=01 E=02
	4418857E-02 2884999E-02				2550E=05		NA PONTING A	- +3+00230	L-V6

PROGRAM 40	VERB 06	NOUN 40	R1 =00 23 R2	-+01734 R3 +00	192 FLASH-0	DSPTAB	+11 00000	
41222304 -00042095	49491686 8	51C6113 6894023	•41222304 •7 •00042095 -•4	ENCE MATRIX 9159081 =-45106 94916868689 5838706 -20368	023 -	•70100498 - •31392121 -	TUDE MATRI: •24671626 •73571324 •63075829	**************************************
	MBAL ANGLE	SDS CDU AGC =56+20 =56				- V /- V		
		44*69 44						
X= •000 A6	G= 102+80	102-80 102	• 90					
SDS CM -		RY RZ 170449•3 -305270 170924•0 -305302 -474•7 32		-7194 • 66	-2470.91 -2468.13 -2.78	VZ 1414.82 1412.76	RSS 7743.80 7736.32 7.47	TIME 2855•94
SDS LM .	2949469.2 51	85169.8 =294643	0.2 6653330.4	-6936+82	~2982.79	1705.84	7741 • 21	0001 11
		85122+1 =294646			=2982 - 80	1705.84	7741.23	2926 • 41
DELTA	.9	47.7 2	9.9 23.5	- • 01	• 02	07	- + 01	
POSITION	LAT	LONG AL	T APOGEE	PERIGEE	AZIMUTH	ELEVATION	RANGE	RANGE RATE
SDS CM	-26.43	68 • 41 27203			- • 02	3.20	543393.7	-11.78
SDS LM	-26 • 44	68•39 27937	4.3 281506.5	272393•0				
FLAGWD 0 00200 FLAGWD 8 50000	FLAGWD 1 00001 FLAGWD 9 00000)		FLAGWD 4 00000	•			*
RCSFLAGS 00001	RCSFLAGS 00001 FAILRG+2 00000		RSBBQ+1 03434 PIPA Y 77777	CADRFLSH 56016	CADR+1 73174 FLAG 10 00000		145 FAILRE	G 00000 S 00120
HOLDFLAG 77776	DAPDATR1 11103		REDUCTR 00001	IMBDF 30 36000	IMBDE 33 26000			2 02242
CHAN 13 00100	CHAN 14 00000	CHAN 30 37373	CHAN 31 37777	CHAN 32 77777				
CDUX 102.5 AD8T/88P4316		-56 • 00830 •0BY •3553927E-03		74731 CDUT	=19.76715 =.5053711	ADBT/ AK2	1714603I	E=01
THETAD X 102.	3047 THETA	AD Y -55.30518	THETAD Z 44 .	27490 TIG	2879.890	DELLT4	1139.650	
RTARG X =61636				15646. TG8 147500 PACT	~24187 • 24 OFF ~2 • 918175	PIPTIME		
PCMD +0000		0000000		OOOOO ADOT			P = . 3950224	E=01
	3927E-03 AK	1098633	AK148	33984 AK2	-,4394531	THETAD		
THETAD Y =55.30		AD Z 44.27490 *0000000		07942 CENT		DELTAR	117620+0	
	7696E=01 ERROR			00000 LEMM		WBeD/er		
WB8D/8CY .0000		AD X 102,3047	THETAD Y -55			VGTIG >		
VGTIG Y -13.46	6321 VGTIC	Z -27.39449	S/C MASS 178	88.571 X CG	8.466005	Y CG	.3071489	
Z CG •507			SLOSH AR =7.8		31119 • 44	IYY	79900 • 74	F-04
IZZ 84710 WY DEG/S 1049		2036+133 EG/S =+6994114E=02		•1853 IYZ	1424.454 M/S2 = 93274038	WX DEG,		
	9118E=01 WZ DE 2901E=02 XGYR6			000000 AXSC		E=03 AYSCM/S		
AYSMM/S2 462				11596E=02	- 0000000	AA311173		

ERUGRAN 40 VERD UE	NGUN #O	K-1 =00 2-1	RZ +U1/84	Ka +Oncet	FLASH O DSI	TAB-+1-1 00000	
SDS REFERENCE -:41222304 ,79159081 -0004209549491686 9110828635838706	-:45106113 -:86894023	AGC F **41222304 **00042095 **91108285		1X =:45106113 =:86894023 :20368291	*.*7013044 **3131456 **64039969	73631644	***66884995 *59981489 *43915987
REFSMMAT ER GIMBAL ANGL Y= .000 AIG= -56.21 Z= .000 AMG= 44.66 X= .000 AMG= 102.75	-56·21 44·66	GC CDU =56:01 44:70 102:82					
STATE VECT RX SDS CM -2464210.5 AGC CM -2463514.6 DELTA -696.6	5365492*3 =304 5365974*0 =305	9865 . 4 66454	+88 • 9 -719 768 • 4 -718	X 4+87 =248 66-07 =248	5.56 1422.9	7743•97 7734•21	TIME 2857•94
9DS LM #2963334.9 AGC LM #2963335.8 DELTA #2963335.8	5179142.4 -294	3040.4 66532		28 • 82		7741+24	2928+41
pesition LAT sps cm *26.46 sps LM *26.46	68.55 27		GEE PERIO 674.4 25918 527.9 27238	5.9	MUTH ELEVATION 3.1		RANGE RATE #11.90
FLAGWD 0.00200 FLAGWD 1 FLAGWD 8.50000 FLAGWD 1 RCSFLAGS 00001 RCSFLAG FAILRG+1 00000 FAILRG+1 HBLDFLAG 77776 DAPDATR: CHAN 19 00100 CHAN 14	9 00000 5 00001 RSBBQ 421 2 00000 PIPA X 777 1 11103 DAPDATR2 111	06 RSBBQ+1 01 77 PIPA Y 7 11 REDOCTR 01	3434 CADRFLSH. 7777 PIPAZ 0001 IMODE 30	56016 CADR+1 77731 FLAG 1 36000 [M0DE	73174 CADR+2 0 00000 FLAG 1 33 26000 CHAN 1	1 00000 BPTMBDE	7 02140 3 00000 5 00120 2 02242
CDUX 102.8650 AD07/08P3601537E-01 THETAD X 102.3047 RTARG X -6163634. DELV X .0000000 PCMD .0000000 AD07/08P .3553927E-03	CDUY -55.99731 AD01/08Y .3553927E THETAD Y -55.30518 RTARG Y 2176504 DELV Y *0000000 YCMD *000000000000000000000000000000000000	THETAD Z RTARG Z DELV Z CSTEER	44.70337 .7690430E=01 .44.27490 .1235646. .2.106000 .0000000 .4614258	AK1 F. TIG 2 TG8 =2 PACTOFF =2 AD8T/ =. AK2 =.	4614258 AK 879.890 DE 4187.24 PI *918175 YA 2167896E*01 AD 4504395 TH	LLT4 1139.650 PTIME1 2857.940 CT0EF 2.230150 0T/08P3095940 ETAD X 102.3047	
THETAD Y -55.30518 TEVENT 2372.820 ERRBRX #3295879E-01 W880/6CY *0000000 VGTIG Y -14.25991 Z CG *5077438 IZZ 84710.12 WY DEG/S **6994114E-02	THETAD Z 44.27490 PCMD .000000 ERRBRY .4614258 THETAD X 102.3047 VGTIG Z -26.94178 JET FUEL 44.41943 IXY 2036.133 WZ DEG/S .1049118E	S/C MASS SLOSH AR IXZ	-41.07942 .0000000 .4504395 .55.30518 1788.571 .7.886368 .246.1853 1.000000	LEMMASS • WB0D/8CR • THETAD 2 4 X CG 8 IXX 3 IYZ 1 AXSCM/S2 • •	0000000 CS 0000000 WB 4*27490 VG *466005 Y 1119*44 IY 424*454 WX 9327403E*03 AY	LTAR 117620.0 MMASS 26520.00 6D/8CP .0000000 TIG X .45.01762 CG .3071489 7 79900.74 DEG/S .2797646 SCM/SZ .9560588	E=03
AZSCM/S2 +5922901E=02	XGYR00UT .0000000	YGYROOUT	*0000000		0000000 AX	SMM/S2 +3673468	E=02

AYSMM/S2 - 4636345E - 02 AZSMM/S2 .1460667E - 02 ARSMM/S2

PREGRAM 40 - VERB	06- NBUN 40	R1 -00-19	R2 +01839	R3 +00334 FLASH (DSPTAB +1	1 00000
SDS REFERENCE 41222304 +791590 -00042095 +-494916 91108286358987	8145106113 8686894023	AGC 41222304 +00042095 91108285	REFERENCE MATE *79159081 **49491686 **35838706	45106113 -,86894023	**31228280 #*7	DE MATRIX 466144666870594 3703480 -59938169 2925315 -43997002
REFSMMAT ER GIMBAL AN Y= 0000 AIG= 0560 Z= 0000 AMG= 440 X= 0000 A0G= 1020	22 *56.22 65 44.65	AGC CDU *56.02 44.69				•
STATE VECT RX SDS CM +2478594 AGC CM +2477878 DELIA -716	RY •0 5360505•8 =30 •0 5360996•0 =30	RZ RS 047012+4 6645 047340+0 6645	5504+9 *718 5783+5 *717	VX 37*44 =2500°44 77*33 =2495°73 0*11 =4*71		RSS TIME 7743033 2859094 7731097 11036
SDS LM -2977184 AGC LM -2977185 DELTA				20.78 +3010.83 20.77 +3010.84 01 +02		7741.25 2930.41 7741.2601
POSITION LA SDS CM #260 SDS LM #260	37 68 • 69 3 37 68 • 66	272045•2 272 279335•2 281	3GEE PERIO 2680.8 25914 1549.4 27238	+5+3 **Q2 36+3		RANGE RANGE RATE 43346.4 =11.23
FLAGWD 8 50000 FLAGWO RCSFLAGS 00001 RCSFL FAILRG+1 00000 FAILRG	9 00000 GS 00000 RSBBQ 44 +2 00000 PIPA X 77 R1 11103 DAPDATR2 1	7777 PIPA Y 7	03434 CADRELSH 77776 PIPAZ 00001 IMBDE 30	77726 FLAG 10 00000	4 CADR+2 5014 0 FLAG 11 0000 0 CHAN 11 0140	5 FAILREG 00000 0 0PTM0DES 00120
CDUX 102.8101 ADRT/BBP2398566E-0; THETAD X 102.3047 RTARG X -6163634 - DELV X -0000000 PCMD -0000000 ADRT/BBY -3553927E-0; THETAD Y -55.30518 TEVENT 2372.820 ERRORX3255899E-0	THETAD Y -55-3051 RTARG Y 2176504 DELVY +000000 YCMD +000000 3 AK +219726 THETAD Z +4+2749 PCMD +000000	7E#03 AK B THETAD ; RTARG Z D DELV Z C CSTEER AK1 O ELEV . O YCMD		CDUT -19*76715 AK1 -*4614258 TIG 2879*890 TGB -24187*24 PACTBFF -2*918175 ADBT/ **2568886 AK2 -*4614258 CENTANG 61*50000 LEWMASS 00000000 WBBD/6CR **0000000	AK2 DELLT4 PIPTIME1 YACTOFF ADOT/OBP THETAD X DELTAR CSMMASS WB0D/0CP	**2394543E*01 -*614258 1139.650 2859.940 2.230150 **,1840666E*01 102.3047 117620.0 26520.00 .0000000
WB6D/BCY *0000000 VGTIG Y *14.25991 Z CG *5077438 IZZ 84710.12 WY DEG/S *0000000 AZSCM/S2 *4512131E*0 AYSMM/S2 *.2899533E*0	THETAD X 102.304 VGTIG Z -26.5041 JET FUEL 44.4193 IXY 2036.13 WZ DEG/S -349705 2 XGYRBBUT -000000	7 THETAD 4 S/C MAS! 1 SLOSH AI 3 IXZ 7E=02 CONFIG 0 YGYROOU	Y -55.30518 S 1788.571 R -7.886368 246.1853 1.000000 T .0000000	THETAD Z 44.27490 X CG 8.466005 IXX 31119.44 IYZ 1424.454 AX9CM/S2 .0000000 ZGYRBBUT .0000000	Y CG IYY WX DEG/S AYSCM/S2	-47-04294 .3071489 79900-74 -:3846763E-01 -:1608977E-02 :3709803E-02

PROGRAM 40 VERB 06	NOUN 40.	R1 =00 17 R2 +	01900 R3 +00413	3 FLASH O	- NSPTAR +11	00000
SDS REFERENCE .79159081 -00042095 -49491686 -91108286 -35838706	MATRIX 0.45106113 86894023	AGC REFEREN •41222304 - •791 •00042095•494		3 ————————————————————————————————————	S/C ATTITUD 014663224 113293673	
REFSMMAT ER GIMBAL ANGLI Y= +000 AIG= -56+23 Z= +000 AMG= 44+65 X= +000 AGG= 102+61	. =56+23 =56+	03 68				÷. — —
STATE VECT RX SDS CM =2492961.5 AGC CM =2492224.0 DELTA =737.5		•9 6645519•7 •0 6645798•9	-7179 - 14			RSS TIME 742.20 2861.94 729.56 12.64
SDS LM ~2991018.0 AGC LM -2991018.9 DELTA .9	5167.099 0 -2936152	*8 6653277*4				741.26 2932.41 741.2801
POSITION LAT SDS CM =26.33 SDS LM =26.34		.7 272684.6	PERIGEE 259164:0 272383:0	AZIMUTH E		RANGE RANGE RATE 3324.5 *10.09
FLAGWD 0 00200 FLAGWD 1 FLAGWD 8 500000 FLAGWD 9 RCSFLAGS 00000 RCSFLAGS FAILRG+I 00000 FAILRG+2 HGLDFLAG 77776 DAPDATRI HAN 13 00100 CHAN 14	00000 00000 RSBBQ 42106 00000 PIPA X 00001 11103 DAPDATR2 11111	RSBBQ+1 03434 0 PIPA Y 77777 F REDBCTR 00001	CADRELSH 56016 CAI PIPAZ 77727 FL	DR+1 73174 AG 10 00000 BDE 33 26000	FLAGWD 6 20000 CADR+2 50145 FLAG 11 00000 CHAN 11 01402	FAILREG 00000 O OPTMODES 00120
CDUX 102*7441 ADBT/BBP -1317636F-01 THETAD X 102*3047 RTARG X 6163634* DELV X 0000000 ADBT/BBY 0000000 ADBT/BBY 1372*820 ERRBRX 1098633 WBBD/6CY 0000000 VGT1G Y 15*14845 Z CG 5077438 IZZ 84710*12 WY DEG/S *1597318E*02	CDUY -56.00830 ADB1/6BY .3553927E-03 THETAD Y -55.30518 RTARG Y .275504. DELV Y -5850001E-01 YCMD .0000000 AK .8789063E-01 THETAD Z .44+27.490 PCMD .0000000 ERRGRY .4394531 THETAD X .102-3047 VGTIG Z .26.00117 JET FUEL .44+1943 IXY .2036.133 WZ DEG/S .3457057E*02 XGYRGBUT .50000000	CDUZ 44.6 AK. 54.9; THETAD Z 44.2 RTARG Z 1-235; CSTEER .000; AK1 -4.39; ELEV .47.2 YCMD .000; ERRBRZ 17.88 S/C MASS 17.88 SLOSH AR 7.88; IXZ 246.6 CONFIG 1.000	3165E-01 AK1 7490 TIG 646. TG6 8500 PACIBEE. 00000 ADBT/ 4531 AK2 7942 CENTANG 0000 LEMMASS 4121 WB0D/8C 0518 THETAD. 6571 X CG 6368 IXX 1853 IYZ 0000 AXSCM/S	**0000000 R **0000000 Z 44*27490 8.466005 31119*44 1424*454 2 **9327403E*0	AK2 DELLT4 PIPTIME1 YACIBFF 1 AD01/88P THETAD X DELTAR CSMMASS WB0D/0CP VGTIG X Y CG IYY WX DEG/S 3 AYSCM/S2 **	*2760664E=01 *4614258 1139.650 2861.940 2.230150 2.230150 2.230150 2.23047 117620.0 2.6520.00 0.000000 4.9.22810 3.307189 79900.74 *45546174E=01 *1235881E=02 *1417065F-02

PREGRAM 40	VERB 06	NOUN 40	R1 -+0	0 -15 R2	+01960 R3	+00489 - FLASH	0- DSPT/	AB +11 00000	
** \$1222304 ** 00042095 ** 91108286	REFERENCE .79159081 	MATRIX -: 451c6113 -: 86894023 : 20368291	4122 •0004 •*9110	2304 • 75	3491686 =+86	106113 894023 368291	S/C A7 -+70127153 =+31025934 +,64183927	TTITUDE MATR 24764623 73877597 -62703872	× 66872001 •59828854 •44143391
REFSMMAT ER Y= *000 Z= **000 X= *000	GIMBAL ANGLE AIG= +56+24 AMG= 44+67 ABG= 102+54	SDS CDU *56*24 44*67 102*54	AGC CDU #56.04 +4.68 102.63						
STATE VECT SDS CM AGC CM DELTA	-2507317 × 8 -2506552 × 0 -765 × 8	8Y 5350445*6 5350958*0 +512*4	RZ -3041256*2 -3041596*0 -339*8	RSS 6645536*1 6645815*3 ~279*2	-7 ₁ 77 _{•1} 9 -7 ₁ 59 _{•5} 6	*2523 · 05	VZ 1448•22 1444•14 4+08	RSS 7745 · 89 7727 · 21 18 · 68	TIME 2863.94
SDS LM AGC LM DELTA	-3004835.3 -3004836.2	5161083.2 5161035.4 47.9	-2932655 • 7 -2932685 • 1 29 • 4	6653291 • 3 6653267 • 5 23 • 8	-6904.58 -6904.58	-3038*82.	1737.76 1737.83	7741 • 28 7741 • 29 • • 01	2934.41
SDS CM SDS LM	#26.30 #26.30	L6NG- 68+96 68+93	ALT 272056 • 2 279296 • 0	APBGEE 272689.6 281592.6	PERIGEE 259183.0 272379.6	AZIMUTH	ELEVATION 3,19	RANGE 543300+8	RANGE-RATE
FLAGWD 0 00 FLAGWD 8 50 RCSELAGS 00 FAILRG+1 00 HBLDFLAG 77 CHAN 13 00	000 FLAGWD 9 001 RCSELAGS 000 FAILRG+2 776 DAPDATR1	00000 00001 .RSBbg 00000 PIPA X	2 00734 FLAGV 42106 RSBB0 77777 PIPA 2 11111 REDB0 37373 CHAN	03434 Y 77777 CTR 00001	CADRELSH 560: PIPAZ 7777 IMBDE 30 3600	16 CADR+1 731 24 FLAG 10 000 00 IMBDE 33 260	74 CADR+2 00 FLAG 11 00 CHAN 11	50145 FAILR	0 7 02140 EG 00000 DES 00120 12 02242
ADET/SEP THETAD X 1 RTARG X 6 PELV X PCMD ADET/SEY 1 TEVENT 2 ERRERX WBBD/SCY VGTIG Y -1 Z CG 8 WY DEG/S 6	02:30 ⁴ 7 163634:5550001E=C1 0000000 4190952E=02 5:30518 372:820 2087402 0000000 6:03336 5077438 4710:12 1998823E=01 4958679E=02	THETAD Y -55 = RTARG Y 2176 DELV Y -000 YCMD -000 AK -175 THETAD Z -44 PCMD -000 ERRORY -433 THETAD X -26 JET FUE 44 LXY LXY WZ DEG/S -000 XGYROUT -000	1850E-02 AK 10518 THE 10504 R1/ 10500 DEI 10000 CS' 17812 AK 177490 EL 10000 YC' 14531 ERI 13047 THF 10117 S/ 12004 SL 1133 IX	*13	18359 Al 27490 T 5646 Ti 40000 P 94531 Al 07942 Ci 00000 Li 33984 W 30518 Ti 86368 I ,1853 I	DUT -19.7671 (1 -439453 IG 2879.89 38 -24187.2 ACT8FF -2.91817 0877 -349220 (2 -472412 ENTANG 61.5000 EMMASS 000000 BMD 6CR 000000 HETAD Z 44.2749 CG 8.46600 XX 31119.4 YZ 1424.48 XSCM/S2 0000000 GYR88UT 00000000000000000000000000000000000	1 AK2 0 DELL 4 PIPT 5 YACT 7E-01 AD01 11 THET 10 CEMM 10 W800 10 VGTI 15 Y CG 4 IYY 14 WX D 10 AYSC	472412 149-65 1ME1 2863-94 8FF 2.23015 /68P515654 AD X 102.304 AR 117620. ASS 26520.0 /6CP -000000 6 X -51:3359	1 0 0 0 7 7 7 0 0 0 0 1 1 9 4 4 4 7 5 8 0 7

PRBGRAM 40 VERB 06	NBUN 40	R1 =00 13 R2 +02026	R3 +00572 FLASH 0	DSPTAB +11	00000 -
SDS REFERENCE N 	-:45106113 -:86894023	AGC REFERENCE MAT -41222304	45106113 86894023	•30903888739	E MATRIX 75862566890979 880713 -59764576 660821 -44201684
REFSMMAT ER GIMBAL ANGLE Y= *000 AIG= *56*27 Z= **000 AMG= 44*71 X= *000 A6G= 102*46	SDS CDU AGC C -56.27 -56. 44.71 -44. 102.46 102.	06 69			
STATE VECT RX SDS CM -2521660.8 AGC CM -2520862.0 DELTA -798.8	RY RZ 5345373.6 ~3038351 5345898.0 ~3038700 ~524.4 348	•8 6645552•9 •7: •0 6645830•9 •7:	VX .VY VY VY VY	1451.91 77	RSS TIME- 743.75 2865.94 724.68 19.06-
SDS LM *3018636.3 AGC LM *3018637.2 DELTA *9	5154991.7 -2929172 5154943.8 -2929201 47.9 29		96.43 +3052.76 96.42 +3052.78 01 +02		741.30 2936.41 741.3101
P8SITION LAT. SDS CM *26.27 SDS LM *26.27	L6NG ALT 69.09 272061 69.06 279276	·7 272696 · 0 2592	GEE AZIMUTH 202+4 **02 376+2		RANGE RANGE RATE 3277 • 2 *11 • 49
FLAGWD 0 00200 FLAGWD 1 FLAGWD 8 50000 FLAGWD 9 RCSFLAGS 00001 RCSFLAGS FAILRG+1 00000 FAILRG+2 HOLDFLAG 77776 DAPDATR1 CHAN 13 00100 CHAN 14	00000 RSBBQ 42106 00000 PIPA X 77777 11103 DAPDATR2 11111	FLAGWD 3 10004 FLAGWD 4 RSBBG+1 03434 CADRFLSI PIPA Y 77777 PIPAZ REDBCTR 00001 IMBDE 30 CHAN 31 37777 CHAN 32	1 56016 CADR+1. 73174 77723 FLAG 10 00000 36000 IMBDE 33 26000	FLAG 11 00000 CHAN 11 01402	FAILREG 00000 0PTM0DES 00120
CDUX 102.5903 AD8T/8BP -3413111E-02 THETAD X 102.3047 RTARG X -6163634* DELV X .0000000 PCMD .0000000 AD8T/8BY .4190952E-02 THETAD Y -55.30518 TEVENT 2372.820 ERR8RX .2556445 WB8D/8CY .0000000 VGTIG Y -16.93487 Z CG .5077438 IZZ 847710.12 WY DEG/S .2447940E-01 AZSCM/S2 .4605405E-02 AYSMM/S2 .41718646E-02	CDUY	CDUZ 44.69238 AK 2307129 THETAD Z 44.27490 RTARG Z 1235646. DELV 2 -2.515500 CSTEER .0000000 AK1 .4504395 ELEV .411.0792 YCMD .0000000 ERRBRZ .4943848 THETAD Y =55.30518 S/C MASS 1788.571 SLOSH AR 7.886368 IXZ 246.1853 CENFIG 1.000000 YGR8GUT .0000000 ARSMM/S2 .5129352E=0	CDUT -19.76715 AK14504395 T1G 2879.890 TGB -24187*24 PAC18FF -2*918175 AD8T/ -39985044 AK2 .4943848 CENTANG 61.50000 LEMMASS .0000000 WB6D/8CR .0000000 THETAD Z 44.27490 X CG 8.466005 IXX 31119.44 IYZ 1424.454 AXSCM/S2 *1818844E 2GYR88UT *0000000	AK2 DELLT4 PIPTIME1 YACTSFF -01 AD8T/08P - THETAD X DELTAR CSMMASS W8807/0CP VGT16 X -1 Y CG IYY WX DEG/S - 4YSCM/S2 - 4YSCM/S2 -	26520*00 *000000

PRBGRAM 40 \	ERE 06 NOU	v 40	R1 =00 11 R2	+02094 R3 +0	0656' - FLASH 0	DSPTA8 -	+11 00000	
**41222304 *ZS *00042095 **49	RENCE MATRIX 3159081 4510 4491686 8689 8838706 2036	4023	*41222304 *7 *00042095 **4	ENCE MATRIX 91590814510 94916868689 5838706 -2036	4023 **	*70034409 - *30789852 -	TUDE MATRI •24804807 - •74098396 •62403083	X 66932082 -59677553 -44256997
Y,= *000 AIG= Z= -*000 AMG=	-56.28 -5 44.75 4	CDU AGC C 6*28 -56* 4*75 44* 2*36 102*	09 73		· ·			
STATE VECT SDS CM -253	Rx RY 53402 35990.4 53402 35154.0 53408	73•2 •3035430	RSS •3 6645570•1 •0 6645847•4	-7141:17	*2557 • 63 *2550 • 26 *7 • 37	1465°13 1459°66	RSS 7743.61 7722.10 21.51	TIME- 2867,94
	32421:0 51488 32421:8 51488		*0 6653247 *8	-6888.24 -6888.23	*3066*71 *3066*73	1753+67 1753+73	7741.33 7741.33	2938,41
PESITION SDS CM SDS LM	*26.23 6	0NG ALT 9.23 272067 9.20 279256	•1 272704.5		AZIMUTH 200-	ELEVATION 3.18	RANGE_ 543253.5	RANGE RATE
FLAGWD 8 50000 FL RCSFLAGS 00001 RC FAILRG+1 00000 FA	AGWD 9 00000 CSFLAGS 00001 R AILRG+2 00000 P APDATR1 11103 D	SBBQ 42106 IPA X 77777	FLAGWD 3 10004 RSBBG+1 03434 PIPA Y 77777 REDBCTR 00001 CHAN 31 37777	FLAGWD 4 00000 CADRFLSH 56016 PIPAZ 77721 IMBDE 30 36000 CHAN 32 77777	FLAG 10 00000 IMBDE 33 26000	CADR+2 50 FLAG 11 00 CHAN 11 01	145 FAILRE	ES 00120
CDUX 102.524. AD01.8BP	ZE-03 ADBT/BBY THETAD Y THETAD Y TARG Y DELV	*0000000 *5053711 102*3047 24*96462 44*43457 2036*133 *000000	AK	000000 LEMM 153711 W000 133518 THET 188.571 X CG 188.586368 IXX 1853 IYZ 000000 AXSC	**************************************	THETAD DELTAR CSMASS WB6D/8C VGTIG X Y CG IYY WX DEG/	2.230150 P. 49553247 117620.00 26520.00 P. 0000000 -55.97277 -3071489 79900.74 79900.74 28 -1235881	E=02

PREGRAM 40 VERB 06	6 NOUN 40	R1 =00 09 R2	+02167 R3 +0074	FLASH 0 -	DSPTAB +11 00000	
SDS REFERENCE 41222304 .7915908; .0004209549491686 9110828635838706	1 45106113	**41222304 •79 •00042095 -•49	NCE MATRIX 159081 -**4510611: 491686 -*8689402: 838706 *2036829	3 -• 7,0000 3 -• 30743	317074155974	-•66960716 •59629989 •44277692
REFSMMATER GIMBAL ANG Y= *000 AIG= *56*2 Z= **000 AMG# 44*77 X= *000 AGG= 102*3	7 = 56.27 8 44.78	3C CDU -56.09 44.78 102.38			·	
STATE VECT RX SDS CM =2550305 • AGC CM =2549428 • DELTA =877.	0 5335141.5 -303 0 5335698.0 -303	RZ RSS 2494.4 6645585.9 2860.0 6645863.1 365.6 ~277.1	-7153-83	-2573.25 1473 -2563.79 1467		TIME- 2869.94
SDS LM #3046189 01 AGC LM #3046190 0 DELTA	1 5142676.9 -292	2157.6 6653261.8 2186.6 6653237.9 29.0 23.9		=3080 • 66 176	1.61 7741.33 1.67 7741.34 0701	2940 • 41
POSITION LAT SDS CM *26.20 SDS LM *26.20	0 69.36 27	ALT AP8GEL 2072.5 272712.8 9236.8 281658.2	PERIGEE 259242*9 272369*4		ATION RANGE 3.18 543230.7	RANGE RATE *11*38
FLAGWD 0 00200 FLAGWD FLAGWD 8 50000 FLAGWD RCSFLAGS 00001 RCSFLAG FAILRG+1 00000 FAILRG+: HBLDFLAG 77776 DAPDATR CHAN 13 40100 CHAN 14	9 00000 \$ 00001 RSBBQ 421 2 00000 PIPA X 777 1 11103 DAPDATR2 111	77 PIPA Y 77777 11 REDUCTR 00001	CADRELSH 56016 CA PIPAZ 77717 FL	DR+1 73174 CADI AG 10 00000 FLAG BDE 33 26000 CHAI	3 11 00000 BPTMBDE	00000
CDUX 102.4146 AD0T/08P +5317480E=02 THETAD X 102.3047 RTARG X +6163634. DELV.X .0000000 AD0T/08W -6256253E=02 THETAD Y -55.30518 TEVENT 2372.820 ERRORX w+614258 WB0D/06Y +0000000	CDUY -56.07422 AD01/0BY -27999688E THETAD Y +55.20518 RTARG Y 217650+* DELY. Y ±0000000 AK ±000000 AK ±4504395 THETAD Z 44*27490 PCMD *0000000 ERRGRY 5383301 THETAD X 102*3047.	-02 AK	646 TG9 11000 PACTBFF 10000 ADT7 3437 AK2 17942 CENIANG 10000 LEMMASS 3848 WB0J/8C 10518 THETAD	R •0000000 Z 44•27490	AD8T/ * * * * * * * * * * * * * * * * * *	AN MA YEAR - THE
VGTIG Y =18.82172 Z CG +5077438 IZZ 84710:12 WY DEG/S +1398823E-01 AZSCM/S2 +7531878E-02	VGTIG Z =24.41654 JET FUEL 44.44861 IXY 2036.133 WZ DEG/S 0000000 XGYR00UT 0000000 475RM/S2 26633556	CONFIG 1.00 YGYROOUT .000	6368 IXX 1853 IYZ 00000 AXSCM/S 00000 ZGYRÐÐU		Y CG .3071489 IYY 79900•74 WX DEG/S -11398823E AYSCM/S2 -1142607E AXSMM/S2 •5050564E	*02

PRODUKAL TO VERD	UB NOUN WO	K1- =00 07 RE4	-04540 K3 +008	3/ FLASH 0	-DSPTAB +11 0	0000
SDS REFERENCE 4122230479159 -00042095449491 9110828635838	86 - 86894023	**************************************	NCE MATRIX 159081451061 191686868940 338706 +203682	23 **30	S/C ATTITUDE 99772602483 07647477414 4472508 -6233	7732 -,66979599 2599 -59635520
REFSMMAT ER GIMBAL A Y= *000 AIG= +56	27 -56.27 -5	0.07				
Z= ==000 AMG= 44 X= +000 AMG= 102		2,37		,		· · · · · · · · · · · · · · · · · · ·
STATE VECT RX. SDS CM =256460 AGC CM =256368 DELTA =92	2.0 5330556.0 -30299		~7146.49 ~7122.32 ~24.17		1480*95 774: 1475*06 771:	RSS TIME 3*38 2871*94 6*58 6*81
SDS LM #305994 AGC LM #305994 DELTA	1.9 5136501.6 -29186	55.3 6653228.0	+6871+75 +6871+74	-3094.57	769.60 774	1.35 2942.41
	AT LONG A •16 69•50 2720		PERIGEE 259263.8 272365.9	•02 ••02 ••02		*•01 NGE RANGE RATE 07•6 *10•99
FLAGWD 8 50000 FLAGW RCSFLAGS 00001 RCSFL FAILRG+1 00000 FAILR HBLDFLAG 77776 DAPDA	0 1 00001 FLAGWD 2 00734 0 9 00000 AGS 00001 RSBB0 42106 3+2 00000 PIPA 77777 RR1 11103 DAPDATRZ 11111 14 00000 CHAN 30 37373	PIPA Y 77777 REDOCTR 00001	CADRELSH 56016 C	ADR+1 73174 (LAG 10 00000 MBDE 33 26000	CADR+2 50145 FLAG 11 00000	FLAGWD 7 02140 FAILREG 00000 9PTM9DES 00120 CHAN 12 02242
CDUX 102*3706 AD8T/8BP -*9662658E-0 THETAD X *616634* DELV X *0000000 PCMD *0000000 AD8T/8BY -*2943725E-0 THETAD X *55*30518 TEVENT 2372*820 ERR8RX *472*121 W88D/8CY *0000000 VGT1G Y *19*82803 Z CG *5077438 IZZ 84710*12 WY DEG/S *3497057E*0 AZSCM/S2 *1597318E=0 AYSMM/S2 *154*238E=0	THETAD Y =55.30518 RTARG Y 2176504. DELV Y 0000000 YCMD 00000000 AK 4833984 THETAD Z 4.27490 PCMD 0000000 ERRBRY 5603027 THETAD X 102.3047 VGTIG Z 23.84462 JET FUEL 4.46228 IXY 256/5 00000000000000000000000000000000000	THETAD Z 44.2 RTARG Z 1235 C 2-86 C C STEER .000 AK1 .549 ELEV 41.0 YCMD .000 ERRORZ 494 THETAD Y 55.3 S/C MASS 1788 S,054 AR 7.88 IXZ 246. CONFIG 1.000 YGYROÐUT .000	#121 AK1 #490 TIG #490 TIG #5000 PACTEF #5000 AD8T/ #5164 AK2 #7942 CENTAN #5000 LEMMAS #8848 W88D/8 #518 THETAL #571 X CG #5468 IXX #533 IXX #533 IXX	*2137721E*0 *483384 *6.61.50000 \$\$ 0000000 *0000000 *02.44.27490 *8.466005 *31119.44 *1424.454 *(\$2.**9327403E*0	AKZ DELLT4 PIPTIME1 ACTBFF ACTBFF AD01/8BP THETAD X DELTAR IL CSMMASS WB6D/8CP VGTIG X Y CG Y C	2,3047 7620*0. 520*00 000000

PROGRAM 40 VERB 06	NOUN 40 F	R1 =00 05 R2 +0232	25 R3 +00931 FLASH	1 DSPTAB +11 00000	
SDS REFERENCE .79159081 .00042095494916869110828635838706	45106113 86894023	AGC REFERENCE 41222304 - *7915908 000042095 - *4949168 91108285 - *3583876	31 45106113 86894023	S/C ATTITUDE MATE *.69967914	**************************************
REFSMMATER GIMBAL ANGL Y= 0000 AIG= -56.27 Z= -0000 AMG= 44.81 X= 0000 AGG= 102.34	. =56+27 =56+0 44+81 44+8	7			
STATE VECT		0 6645893+9	VX -7140.04 -2602.04 -7112.72 -2590.71 -11.33	VZ RSS 1488.86 7743.87 1482.72 7713.70 6.13 30.17	TIME 2873.94
SDS LM =3073676.2 AGC LM =3073677.0 DELTA .8	5130298.6 -2915108	2 6653218.0	-6863.44	1777 • 45 7741 • 36 1777 • 52 7741 • 38 -• 07 -• 01	2944•41
pesitien LAT SDS CM #26*13 SDS LM #26*14	69 • 63 272083	1 272729 2	PERIGEE AZIMUTH 259284•3 -•02 272362•4	BLEVATION RANGE- 3.17 543186.3	RANGE RATE
FLAGWD 0 00200 FLAGWD 1 FLAGWD 8 50000 FLAGWD 9 RCSFLAGS 00011 RCSFLAGS FAILRG+1 00000 FAILRG+2 H0LDFLAG 77776 DAPDATRI CHAN 13 00100 CHAN 14	00000 00011 RSBBG 42106 00000 PIPA X 77777 11103 DAPDATR2 11111 0	RSBBG+1 03434 CADRI PIPA Y 77777 PIPA REDOCTR 00001 IMOD	WD 4 00000 FLAGWD 5 402 FLSH 56016 CADR+1 731 Z 77714 FLAG 10 000 E 30 36000 IMODE 33 260 32 77777 CHÂN 33 677	74 CADR+2 50145 FAIL 00 FLAG 11 00000 8PTM 00 CHAN 11 01442 CHAN	WD 7 02140 REG 00000 8DES 00120 12 02242
CDUX 102.3706 ADRIV6BP -1575128E-01 THETAD X 102.3047 RTARG X -6163694. DELY X -0000000 ADRIV6BY -2943725E-02 THETAD Y -55.30518 TEVENT 2372.820 ERRRX +4394531 WBBD/6CY -0000000 VGTIG Y -20.85533 Z CG 5077438 IZZ 84710.12 WY DEG/S *3497057E-02 AYSMM/S2 +4512131E-02 AYSMM/S2 +3629866E-02	CDUY -56.06323 ADBT/BBY2943725E-02 THEIAD Y -55.36518 RTARG Y 2176504 DELV Y0000000 YCMD .0000000 AK .4994531 THEIAD Z 44.27490 PCMD .0000000 ERRBRY .5603027 THEIAD X 102.3047 VGTIG Z -23.26078 JET FUEL 44.46265 IXY .2036.193 WZ DEGYS -3497057E-02 XGYRBBUT .0000000 AZSMM/S2 .7376004E-03	CDUZ	TIG 2879.89 TG8 -24187.2 PACT0FF -2.91817. AD0T/ -1.99824 AK2 -4.83398 CENTANG 61.5000 LEMMASS .000000 THETAD Z 44.2749 X CG 8.46600 IXX 1119.4 IYZ AXSCM/S2 -4.932740 ZGYR80UT .000000	7	48 50 40 50 50 97E - 01 47 • 0 00 00 25 89 74 18E ≅ 01 07E - 02

PROGRAM 40 - VERB 99	NOUN 99	R1 -99999 R2 -9	9999 R3 -99999	-FLASH-0 DS	PTAB +11 00000	
SDS REFERENCE **79159081 **00042095 **49491686 **91108286 **35838706	**86894023	AGC REFERENC 41222304 *7915 00042095 **4949 91108285 **3583	1686 -,86894023	\$/C **6997063 **3082070 **6445307	474091148	X ~*66985321 *59670615 *44185781
REFSMMAT ER GIMBAL ANGLE Y= .000 AIG= .56.27 Z=000 AMG= 44.81 X= .000 AGG= 102.37	*56*27 *56*0 .44*81 +4*8	07 80				
STATE VECT RX SDS CM -2593165.3 AGC CM -2592134.0 DELTA -1031.3	5320194.0 -3023986	0 6645909.6		yy 2616.98 1496.2 2604.10 1490.3 -12.88 5.8	7744°04 7710°70	71ME 2875•94
SDS LM =3087394.8 AGC LM =3087395.6 DELTA 8	5124067.8 -2911545	3 6653208 1		3122.33 1785.3 3122.35 1785.4 .020	7741.39	2946,41
#26.10 PAT #26.10 PAT #26.10 PAT #26.10		.3 272738 .2	PERIGEE 259305:3 272358:9	TAVELE SO		RANGE RATE
FLAGWD 0 00200 FLAGWD 1 FLAGWD 8 50000 FLAGWD 9 RCSFLAGS 00011 RCSFLAGS FAILRG+1 00000 FAILRG+2 H0LDFLAG 77776 DAPDATR1 CHAN 13 00100 CHAN 14	00000 00011 RSBBQ 42106 00000 PIPA X 77777 11103 DAPDATR2 11111	RSBBG+1 03434 CA PIPA Y 77777 PI REDBCTR 00001 IN	DRELSH 56016 CADE	10 00000 FLAG	51273 FAILRE	
CDUX 102.4146 AD01/BBP -6859750E-02 THETAD X 102.3047 RTARG X 6163634, DELV X 0000000 AD01/BBY -29.43725F-02 THETAD Y -55.30518 TEVENT 2372.820 ERRORX +004941 M39D/8CY 0000000 VGTIG Y -21.92450 Z CG 5077438 IZZ 84710.12 WY DEG/S 3497057E-02 AVSMM/S2 -3488160E-02	CDUY #56.06323 ADBT/BBY *2943725E-02 THETAD Y *55.30518 RTARG Y 2176504. EELV Y *CC00000 YCMD *0000000 AK *174805 THETAD Z 44.27490 PCMD *0000000 ERRBRY *5712891 THETAD X 102.3047 VGTIG Z -22.65310 JET FUEL 44.477034 IXY 2036.1133 WZ DEG/S *3497057E*02 XGYRBBUT *0000000 2.2346340E=02.	CDUZ 44.802 AK 24284 THETAD Z 44.27 RTARG Z 123564 CSTEER 00000 AK1 5603(ELEV 6403) ELEV -41.07 YCMD 00000 ERRBRZ 4833 THETAD Y 555.30 S/C MASS 1788, SLESH AR 7-886 IXZ 246.1 C6NFIG 10000 AK1 527 C6NFIG 10000 AK1 527 C6NFIG 10000 AK1 527 AK1 50000 AK1 528 AK1 527 AK1 50000 AK1 527 AK1 50000 AK1 527 AK1 50000 AK1 527 AK1 50000 AK1 527 AK1 50000 AK1 527 AK1 50000 AK1 527 AK1 50000 AK1 527 AK1 50000 AK1 527 AK1 50000 AK1 527 AK1 50000 AK1 527 AK1 500000 AK1 50000 A	068 AK1 190 TIG 160 TIG 160 ACTOFF 200 ADOT/ 227 AK2 242 CENTANG 200 LEMMASS 284 WBOD/8CR 2571 X CG 368 IXX 353 IXZ 2000 AXSCM/S2	5603027 2879.890 DI 24187.24 P -2.918175 Y. 1789034E*01 AI 61.50000 DI 0000000 WI 4.27.890 YI 8.466005 31119.44 II 1424.454 W. 8861033E*03 A	1876200 (2 + 48333281 ELLT4 1139.655 IPTIME1 2875.94	5 - 01 5 - 01 5 - 01 6 - 01 7 - 02 7 - 02

PROGRAM 40 VERB	06 NOUN 40	R100-01	R2 +02496 R3 +	01129 FLASH 0	DSPTAB +11	00000
SDS REFERENCI 41222304 .79159; -0004209549491; 9110828635838	8145106113 8686894023	**41222304 *00042095	FERENCE MATRIX •79159081 == 451 •49491686 == 868 •35838706 == 203	94023	30832529 740	MATRIX 3236866974068 75627 -59683847 19152 -44184995
REFSMMAT ER GIMBAL AL Y= *000 AIG= *56 Z= **000 AMG= 44 X= *000 AGG= 102	2756-27 79 44-79 -	AGC CDU -56.07 44.81 102.43				
STATE VECT RX SDS CM +260742 AGC CM +260633 DELTA +109	•1 5314327•2 -3 •0 5314972•0 -3	RZ RSS 020583•1 6645645 020998•0 6645924 414•9	4.5 =7093.16	vy =2631+28 ≈2617+45 ≈13+83	1497 • 97 77	RSS TIME 43.50 2877.94 07.65 35.86
SDS LM +310109 AGC LM +310109 DELTA		907938 • 0 6653227 907966 • 5 6653197 28 • 5 24		*3136 • 19 *3136 • 21 •02		741 • 40 2948 • 41 741 • 41 • • • • • • • • • • • • • • • • • • •
POSITION L SDS CM -26 SDS LM -26	06 69.91	ALT AP8GEI 272093.5 27274 279157.2 28174	7+2 259326+6	AZIMUTH 02		RANGE RANGE RATE 140.7 *10.97
FLAGWD 8 50000 FLAGW RCSFLAGS 00011 RCSFL FAILRG+1 00000 FAILR	0 9 00000 AGS 00011 RSBBQ 4 3+2 00000 PIPA X 7 RI 11103 DAPDATR2 1	7777 PIPA Y 777	34 CADRELSH 56016 76 PIPAZ 77710	CADR±1 73174 FLAG 10 00000 IMODE 33 26000	,	FLAGWD 7 06140 FAILREG 00000 8PTM8DES 00120 CHAN 12 02242
CDUX 102.4255 ADBI/08P1329706E-C THETAD X 102.3047 RTARG X -6163634. DELY X .0000000 ADBI/08Y1897663E-C THETAD Y -55.30518 TEVENT 2372.820 ERRORX3955078 WBDD/6CY .0000000 VGTIG Y .23.01464 Z CG .5077438 IZZ 84710.12 WY DEG/S .0000000 AZSCM/S2 .6109449E-C AYSMM/S2 .4069820E-G	THETAD Y -55.3051 RTARG Y 2176574 DELY Y .000000 YCMD .000000 AK .406494 THETAD Z 44.2745 PCMD .000000 ERRBRY .571285 THETAD X 102.304 VGTIG Z -22.0338 JET FUL 44.4775 LXY .2036.11 WZ DEG/S -6699411 Z GYRBOUT .000000	## O AK B THETAD Z RTARG Z - O DELV Z - O DELV Z - O CSTEER 1 AK1 - O ELEV PCMD 1 ERRBRZ 7 THETAD Y - O S/C MASS 4 SLOSH AR - 1 XZ CBNFIG O YGYRÐÐUT	1235646- TG6 34-042000 PAC -0000000 AD8 -5712891 AK2 -0000000 LEM -4833984 MB6 -55-30518 THE 1788-571 X C -886368 IXX -245-1853 IYZ	5712891 2879-990 -24187-24 10FF -24187-27 -1370609E- -4833384 -1ANG 61-50000 MASS -0000000 D/BCR -0000000 D/BCR +27490 G 8-466005 31119-44	AK2 DELLT4 PIPTIME1 YACTOFF ADST/SBP THETAD X DELTAR CSMMASS WB0D/0CP VGTIG X Y CG IYY WX DEG/S AYSCM/S2 AYSCM/S2	.230150 .2287254E=01 .02.3047 .17620.0 .6520.00

PROGRAM 40 VERB 06	N8UN 40	1 +00 01 ··· R2 +0259	0 R3 +01234 FLASH	O DSPTAB +11	00000
SDS REFERENCE 	45106113 86894023	AGC REFERENCE -7915908 4949168 911082853583870	45106113 86894023	**65963244 **25 **32684326 **75	DE MATRIX 517218670818162 5241351 +57188010 869431 +41404271
REFSMMAT ER GIMBAL ANGLE Y= *000 AIG= *54*36 Z= *1000 AMG= 47*70 X* *000 AGG= 100*68	*54.36 *55. 47.70 46.	1			
STATE VECT RX SDS CM =2624710.7 AGC CM =2620506.0 DELTA +4264.7	RY RZ 5308245.9 -3020032 5309724.0 -3017994 -1478.1 -2038	0 6645939+2	VX 13204*08 +4256*86 -7083*13 #2630*70 -6120*95 +1626*17	1505+59	RSS TIME +289•74 2879•94 7704•42 5585•32
SDS LM =3114781.7 AGC LM =3114782.5 DELTA .8		9. 6653188*2	*6838.32 *3150.04 *6838.31 *3150.05 *.01 *02		7741:42 2950:41 7741:43 -:01
POSITION LAT \$26.03 SDS LM \$26.03		5 277498.6 2	PERIGEE AZIMUTH 261661:130 272351:7		RANGE RANGE RATE +0587.2 -5055.23
FLAGWO 0 00200 FLAGWO 1 FLAGWD 8 500000 FLAGWD 9 RCSFLAGS 00003 RCSFLAGS FAILRG+1 00000 FAILRG4-2 HBLDFLAG 77776 DAPDATR1 CHAN 13 00100 CHAN 14	00000 00001 RSBBQ 42106 00000 PIPA X 00037 11103 DAPDATR2 11111	RSBBQ+1 03434 CADRE PIPA Y 00060 PIPAZ REDBCTR 00001 IMBDE	ND 4 00000 FLAGWD 5 403 FLSH 56016 CADR+1 731 Z 00037 FLAG 10 000 E 30 36000 IM6DE 33 260 32 77777 CHAN 33 677	74 CADR+2 51273	3 FAILREG 00000 0 0PTMODES 00120
CDUX 102.4365 AD01.8BP .0000000 THETAD X 37.66787 RTARG X .6163634. DELV X .0000000 PCMD .1.684475 AD01.8BP .1552798 THETAD Y 38.66089 TEVENT 2879.900 ERRORX .0000000 WSDD.6CY .0000000 VGTIG Y .24.19662 Z CG .5069036 IZZ 84687.23 WY DEG/S .7588613 AZSCM/S2 .123522 AYSMM/S2 2.462215	CDUY	CDUZ	CDUT	AK2 DD AK2 DD DELLT4 PLOTIME1 TE YACTOFF TR ADBT/8BP THETAD X DD DELTAR DD CSMMASS DD WB6D/0CP VGTIG X TO CSMMASS DO VGTIG X TO CSMA	.3071966 79825:40

PROGRAM 40	VERB	NOUN 40	R1 =00	23 R2 +02	430 R3 +014	+11 FLASH 0	DSPTA	B +11 00000	
SDS 412223c4 -00042095 91108286	REFERENCE *79159081 49491686 35838706	ATRIX -: 45104113 -: 86894023 -: 20368291	-•41222 •000420 -•911082	95 - 49491	081 45106:	23	S/C AT ,71853542 ,27318358 ,63959193	TITUDE MATRIX 27308917 73494577 -62070632	-+63963223 +62066507 +45348096
REFSMMAT ER Y= 0000 Z= 0000 X= 0000	GIMBAL ANGLE AIG= -59+36 AMG= 43+68 A0G= 104+06	SDS CDU +59:36 43:68 104:06	AGC CDU +55*25 -47*24 101*32						
STATE VECT SDS CM AGC CM DELTA	RX -2641309 • 0 -2634670 • 0 -6639 • 0			RSS. 6648446*6 6645957*2 2489*4	-6799.32 -7079.91 280.60	YY =2869 • C1 =2646 • 27 =222 • 73	VZ 1586•06 1510•29 75•77	RSS 7548*34 7707*72 *159*38	TIME 2881.94
SDS LM AGC LM DELTA	-3128449.9 -3128450.7			653202 • 5 653178 • 2 24 • 3	=6829487 =6829486 =+01	=3163.87 =3163.88 •02	1809 • 04 1809 • 10 - • 07	7741 • 43 7741 • 45 •• 01	2952+41
POSITION SDS CM SDS LM	~25.99 ~26.00	L6NG 70°18 70°14	ALT 272110 • 6 279117 • 1	AP0GEE 288291 *5 281791 *6	PERIGEE 264393 * 8 272348 * 1	AZIMUTH 68	ELEVATION 2*85	RANGE 538519•7	RANGE RATE 184+40
FLAGWD 0 003 FLAGWD 8 500 RCSFLAGS 000 FAILRG+1 000 HOLDFLAG 777 CHAN 13 001	000 FLAGWD 9 001 RCSFLAGS 000 FAILRG+2	00000 00001 RSBBQ 00000 PIPA X 11103 DAPDATR2	00043 PIPA Y 11111 REDUCT	03434 CAD 00107 PIP 00001 IM8	RFLSH 56016 AZ 00075 DE 30 36000	FLAGWD 5 40302 CADR+1 73174 FLAG 10 00000 IMODE 33 26000 CHAN 33 67767	CADR+2 FLAG 11	50000 FLAGWD 51273 FAILREG 00000 6PTM6DE 01420 CHAN 12	00000 S 00120
ADRT/88P 3/1 THETAD X 3/6 TARG X -6 DELV X 2. PCMD 7/6 THETAD Y 3/6 TEVENT 2/7 TERRARX WBBD/BCY 2/7 Z CG 1ZZ 8/1 WY DEG/S -4	5059943 4659.58	CDUY -54*17 AD61/8BY -3439 THETAD Y 38*65 RTARG Y 21765 DELV Y 3*627 YCMD -1*613 AK 1.076 THETAD Z -64*70 PCMD *2372 ERR8RY -110*6 THETAD Z -17*91 JET FUEL 44*47 IXY 2036* WZ DEG/S 5*063 KGYR8BUT *000000000000000000000000000000000000	934E-01 AK 089 THET 04* RTAR 000 DELV 300 CSTE 660 AK1 947 ELEV 501E-01 YCMD 543 ERR0 047 THET 563 S/C 839 SLGS 4438 IXZ 738 COMF	Z 3.27600 ER .000000 -3.47168 -41.0794 -498225 RZ 43.9013 AD Y -55.3051 MASS 1780.85 H AR -7.77341 242.492	9 AK1 7 TIG 1 TIG 1 TIG 1 TIG 1 TIG 1 AK2 2 CENTA 1 K2 2 CENTA 1 K3 2 X CG 7 IXX 1 IX 10 AXSCM	3.076172 NG 61.50000 SS .000000 BCR1368095E D Z 44.27490 8.471537 30990.59 1460.285 /S2 3.455616	THETA DELTA CSMMA O1 WB0D/	1.933594 139.650 ME1 2881.940 MEF 2.230150 MBP -1787961 DX 37.06787 R 117620.0 SS 2616.00 GCP -1429316 X -68.09168 3072491 79743.39 G/S 3427057 VS 41186329	-02

ARSMM/S2 3.474123

AYSMM/S2 2,215432

AZSMM/S2 2.333070

PROGRAM _ 40	VERB -06	NBUN 40	- R100	15 R2	+02205 -R3-+0	1658 FLASH C	DSPTAB	+11 00400 -	
\$0\$ -:41222304 -:00042095 -:91108286	*79159081 **49491686	MATRIX 451G6113 86894023 -20368291	- 41222 • 00042 • 91108	2304 +79 2095 #+49	NCE MATRIX 159081 **4510 491686 **8689 838706 *2036	4023 **	*79305840 · · 17838478 ·	TUDE MATRI ••29945350 ••71847796 •62778735	*53045869 *67228603 *51637650
	AIG= +65+49 AMG= 37+50	*65.49 37.50	AGC CDU #63.92 - 39.25						
X# .000 STATE VECT SDS CM AGC CM DELTA		106*75 RY 5296434*3 5299138*0	106 • 94 RZ -3015739 • 1 -3011954 • 0 -3785 • 1	RSS 6648354 • 1 6645977 • 7 2376 • 4	-7886 +86 -7078 +33 +808 +52	*1978*72 *2663*02 684*30	VZ 2550*66 1514*05 1036*62	RSS- 8521.96 7712.77 809.19	TIME 2883•94
SDS LM AGC LM DELTA	*3142101*1 *3142101*9 *8		-2897107.4 -2897135.5 28.1	6653192.6 6653168.2 24.4	-6821+38 -6821+37 -01	*3177+68 *3177*70 *02	1816:91 1816:98 ~:07	7741 • 45 7741 • 46 -• 01	2954.41
POSITION SDS CM SDS LM	LAT *25.96 *25.96	LBNG. 70.31 70.28	ALT 272127 • 1 279097 • 0	Apagee 303090.9 281814.2	PERIGEE 265221 • 3 272344 • 5	AZIMUTH -+60	ELEVATION 2.86	RANGE 538047.6	RANGE RATE
FLAGWD 0 00 FLAGWD 8 50 RCSFLAGS 00 FAILRG+1 00 HOLDFLAG 77 CHAN 13 00	000 FLAGWD 9 001 RCSFLAGS 000 FAILRG+2 776 DAPDATR1	40000 00001 RSBBG 00000 PIPA X 11103 DAPDATRS		+1 03434 Y 00072 TR 00001	FLAGWD 4 00000 CADRELSH 56016 PIPAZ 00067 IMBDE 30 36000 CHAN 32 77777	FLAGWD 5 40302 CADR+1 73174 FLAG 10 00000 IMBDE 33 26000 CHAN 33 67767	CADR+2 51 FLAG 11 00 CHAN 11 1	1273 FAILRE	S 00120
ADGT/GBP - THETAD X GETARG X G	7.06787 153634. *457000 *372500 2372500 248.66089 879.990 000000 1703186 0.68548 50.585793 4630.01	CDUY -59.74 ADBIJOBY -5344 THETAD Y 38.66 RTARRY Y 21766 DELV Y 5.03 YCMD 2.11 AK -4.53 THETAD Z -64.77 PCMD -1.09 ERRBRY -26.66 THETAD X 102.1 VGTIG Z -13.44 JET FUEL 4.81 IXY 2036. WZ DEG/S 1.314 XGYRBBUT 2.000 AZSMM/S2 2.63	7715 AK 5089 THE 5089 THE 5089 THE 5089 THE 5089 THE 5089 THE 5089 THE 5280 CST 7354 AK1 7354 AK1 7354 AK1 7354 FLE 73554 SC 6089 THE 6099 SL	-2.17 RG Z -644-7 RG Z -123 V Z 5-03 EER -000 1.57 V -91.0 D 1.57 BRZ 43.0 TAD Y -55 MASS 177.7 SH AR -77.7	70947 TIG 6646 TQ8 11000 PACT 10000 AD8T 19063E-01 AK2 17942 CENT 12125 LEMM 10137 W800 10518 THET 1-853 X CG 14558 IXX 13564 IYZ 10000 AXSC	-1.362365 2899-380 15-4-000 0FF -9727250 -68-11523 -6921387 ANG 61-50000 ASS -00000000 /OCR -83098196 AD Z 44-27490	PIPTIME YACTORE ADOT/OBE THETAD DELTAR CSMMASS WBOD/OB VGTIG Y CG IYY	**5694000 **37.06787 **117620.0 **56216.00 **56246.00 **56249733 **3073015 **79658851 **51.175011 **5843908	E≈01

TAPE WEDB RUN 6 VERIFICATIO	V C4.18A TEST	RUN DATE 10/23/68 EDI	DATE 230CT68	SDS TIME	2957 AGC TIME	2887.13 ID 774	PAGE 79
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- PROGRAM ·	0 VERB 06	NOUN 40	R1 =00 1	.5 R2 +01998	R3 +01882	FLASH 0	DSPTAB	+11 00400	
**412223 **000420! **911082	95 -+49491686	-:45106113 -:86894023	AGG • 412223 • 0004209 • • 9110828	5 49491686	RIX **45106113 -*86894023 *20368291	** 0	8,2770681 11311054	ITUDE MATRIX 30555677 73069596 -61050606	47067666 - -67326736 -57024002
REFSMMAT Y= .00 Z=0 X= .0	00 AIG= -67.91 00 AMG= 34.05	-67 × 91 34 × 05	AGC CDU -66*49 -35*47 106*20						
STATE VEC SDS CM AGC CM DELTA	RX +2670289 • 1 -2662982 • 0 -7307 • 1	5291043•7 5293796•0	-3011567.0 66 -3008922.0 66	547941 • 3 ~ 71 546003 • 4 ~ 70	10.66 *8	VY 2693+44 2679+06 *14+38	VZ 1986•16 1518•48 467•68	RSS 7858 • 82 7717 • 58 141 • 23	TIME 2885.94
SDS LM AGC LM DELTA	⇒3155735.4 _⇒3155736.2	5092498 2				3191.47 3191.49	1824:77 1824:84 -:07	7741 • 47 7741 • 48 = • 01	2956 • 41
PBSITION SDS CM SDS LM	.LAT *25*92 *25*93		272149 • 5	320895+5 265	IGEE 288 • 4 340 • 8	**53	ELEVATION 2.90	RANGE 537593 • 8	RANGE RATE
FAILRG+1 HOLDFLAG	50000 FLAGWD 9 00001 RCSELAGS 00000 FAILRG+2 77776 DAPDATR1	40000 00001 RSBBQ 00000 PIPA X	42106 RSBBQ+1 00037 PIPA Y 2 11111 REDOCTR	3 10004 FLAGWD 4 03434 CADRFLSH 00064 PIPAZ 00001 IMODE 30 37777 CHAN 32	H_56016 CADI 00063 FLAI 0 36000 IMBI	R±1 73174 3 10 00000 DE 33 26000	CADR+2 5	1273 FAILREC	01111 S 00120
CDUX AD0T/08P THETAD X RTARG X DELV X PCMD AD0T/08P THETAD Y TEVENT ERRORX W80D/0CY VOTIG Y Z CG IZZ WY DEG/S	106.7871 -:1850992 37.06787 -6163634. 2.632500 -1.494675 -1182452 38.66089 2879.900 .0000000 .1918718 -19.02351 -5041580	CDUY -65.42 ADBI/8BY .11467 THETAD Y 38.66 RTARG Y 217.55 DELV Y 4.09 YCMD -782 AK 3.71 THETAD Z -64.77 PCMD -1.30 ERRBRY 24.77 THETAD X 102.8 VGTIG Z -9.69; JET FUEL 44.84 IXY 2036. WZ DEG/S 1.72 XGYR80UT .000	3457 CDUZ 3340 AK 1089 THETA 504 RTARG 5000 DELV 2550 CSTEE 3379 AK1 1947 ELEV 4875 YCMD 8825 ERROR 3047 THETA 1906 S/C M 4058 SLOSH 743 IXZ 50552 CONFI	37.25464 +4.306641 D Z =64.70947 Z =1235646. Z =1235646. C =127000 000000 -1538086. +1.07942. -8541000 Z +3.90137 D =55.30518. ASS 1772.853 AR -7.655483 238.0371	CDUT AK1 TIG TG8 PACTBFF AD8T/ AK2 CENTANG LEMMASS W880/8CR	-19.76715 -2416992 -2901.4609 -15.52000 -1.352325 -12.30469 -32958992 -61.50000 -0000000 -0000000 -12896402 -44.27490 -8.478141 -3687.40 -1497.334 -3476043	YACTOF AD07/06 O1 THETAD DELTAR CSMMAS WBBD/06 VGTIG Y CG IYY WX DEG AYSCM/	1139.650 E1 2885.940 F 1.043900 BP1653548 X 37.06787	

PROGRAM 40 VERB 06	NOUN 40	R1 -00-15 R2 +01813	R3 +02085 FLASH 0	- DSPTAB +11	1 00400
SDS REFERENCE ** 79189081 ************************************	45106113	AGC REFERENCE MAT *41222304	**86894023 **	+03081775 -+73	DE MATRIX 2344246 39507103 3947668 -67247629 9038830 -62585449
REFSMMAT ER GIMBAL ANGLE Y= *000 AIG* -71*33 Z= **000 AMG= 30*20 X= *000 A8G= 104*64	=71.33 =69	• 70 • 04			· · · · · ·
STATE VECT RX SDS CM *2670499 *4 AGC CM -2662982 *0 DELTA *7517 *4	RY 87 5290898•1 -3011036 5293796•0 -3008926 -2897•9 -2108	0 • 1 6647666 • 7 • 69 2 • 0 6646003 • 4 • 70	VX 82*64 *2776*17 76*58 *2679*06 93*94 *97*11		RSS TIME 7749.63 2885.94 7717.58 32.05
SDS LM #3169352:5 AGC LM #3169353:3 DELTA *8	5086149+8 -288980 5086101+4 -288983 48+3 2		04.29 .3205.25 04.28 .3205.27 01 .02		7741.48 2958.41 2741.50
PBSITIBN LAT SDS CM *25.89 SDS LM *25.89	LBNG AL 70.58 27217 70.55 27905		GEE AZIMUTH 23.650 37.2		RANGE RANGE RATE 52694.4 -15.78
FLAGWD 0 00200 FLAGWD 1 FLAGWD 8 50000 FLAGWD 9 RCSFLAGS 00001 RCSFLAGS FAILRG+1 00000 FAILRG+2 HBLDFLAG 7777-6 DAPDATR1 CHAN 13 00100 CHAN 14	40000 00001 RSBBQ 42106 00000 PIPA X 00034 11103 DAPDATR2 11111	FLAGWD 3 10004 FLAGWD 4 RSBBG+1 03434 CADRFLSH PIPA Y 00060 PIPAZ REDBCTR 00001 IMBDE 30 CHAN 31 37777 CHAN 32	56016 CADR±1 73174 00061 FLAG 10 00000 36000 IMBDE 33 26000	CADR+2 51273 FLAG 11 00000 CHAN 11 (1)420	BPTMeDES 00120
CDUX 105.6665 AD81/88P *.1536939 THETAD X 37.06787 RTARG X *6163634* DELV X 2*223000 PCMD *8803750 AD81/88P *1692507 THETAD Y 38*66089 TEVENT 2879*900 ERR8RX *000000 MB8D/8CY *1872843 VGTIG *17.36584 Z CG *5032310 IZZ WY DEG/S *16622634 AZSCM/S2 *1850790 AVSMM/S2 *1.575692	CDUY -67.97241 ADBT/8BY .1612175 THETAD Y 38.66089 RTARG Y 2176504 DELY Y 3.685500 YCMD 9015500 AK -2.691650 THETAD Z -64.70947 PCMD -1.162525 ERRBRY -13.35937 THETAD X 102.3047 VGTIG Z -6.392288 JET FUEL 44.84058 IXY 2036.957 YZ DEG/S 1.8888411 XGYRBBUT -00000000	CDUZ 33.88184 AK -3.186035 THETAD Z *64.70947 RTARG Z *1235646. DELY Z *4.46000 AK1 *4614258 ELEY *41.07942 YCMD *10.7942 YCMD *10.7942 YCMD *3.90137 THETAD Z *55.30518 S/C MASS 1768.852 SLOSH AR *7.596171 IXZ 23515652 CONFIG 1.0000000 YGYROBUT *00000000 YGYROBUT *00000000	CDUT #19*76715 AK13076172 TIG 2903*350 TGB 15.43-000 PACIBEF =1*393775 AD817 *10*10742 AK2 -2307129 CENTANG 61*50000 LEMMASS *0000000 WB8D/8CF **0000000 THETAD Z 44*27490 X CG 8*481789 IXX 30790*81 IYZ 1515.8588 AXSCM/S2 3*483458	AK2 DELT4 PIFTIME1 YACTOFF ADDT/OBP THETAD X DELTAR CSMMASS WB0D/OCP	37.06787 117620.0 26216.00 .1587415 -52.07806 .3074074 79483.03

PROGRAM 40	VERB 5	NOUN 9	. R1	01111 R2	00000 R3 0	0000 FLASH 0	DSPTAB	+11 00400	
SDS -*41222304 *00042095 -*91108286	REFERENCE 79159081 49491686 35838706	'ATRIX -:45106113 -:86894023 :20368291	412 •000 911	22304 .79	NCE MATRIX 1590814510 4916868689 838706 -2036	4023	88882446	ITUDE MATRI 336 ₀ 5242 747 ₀₁₁₆₆ -57362151	X ~*31154490 *66292238 *68078828
REFSMMAT ER Y= *000 Z= **000 X= *000	GIMBAL ANGLE AIG= -74.47 AMG= 25.89 ABG= 103.26	SDS CDU -74.47 25.89 103.26	AGC CDU -72.98 -27.84 103.99						
STATE_VECT_ SDS_CM AGC_CM DELTA	-2684557.3 -2677132.0 -7425.3	RY 5285480 • 1 5288422 • 0 ~2941 * 9	RZ -3007104.6 -3005880.0 -1224.6	RSS 6647242*0 6646033*2 1208*8	*7025*31 -7074*29 *8*98	•2726 • 86 •2695 • 09 •31 • 77	VZ 1990•93 1523•37 467•56	RSS 7794.52 7722.03 —72.49	TIME 2887 ₄ 94
SDS LM AGC LM DELTA	+3182952.5 +3182953.3	5079725.5 5079677.1 48.4	-2886135.3 -2886163.0 27.7	6653162.8 6653138.2 24.6	-6795.70 -6795.68 01	-3219:01 -3219:03 -02	1840.46 1840.53 07	7741.50 7741.51 01	2960 • 41
POSITION SDS CM SDS LM	-25.85 -25.86	L⊕NG 70∗72 70•68	ALT 272209.7 279036.5	AP8GEE 360754.6 281882.3	PERIGEE. 264955 • 8 272333 • 4	AZIMUTH 45	3.03	RANGE 552599•6	RANGE RATE +56+78
FLAGWD 0 003 FLAGWD 8 500 RCSFLAGS 000 FAILRG+1 000 HBLDFLAG 77 CHAN 13 00	DOO FLAGWD 9 DO1 RCSFLAGS DOO FAILRG+2 776 DAPDATR1	40000 00001 RSBBQ 00000 PIPA X 11103 DAPDATR	42106 RSBE 00030 PIPA 2 11111 REDE	8Q+1 03434 Y 00052 BCTR 00001	FLAGWD 4 00200 CADRFLSH 56016 PIPAZ 00065 IMODE 30 36000 CHAN 32 77777	FLAGWD 5 40302 CADR+1 73174 FLAG 10 00000 IMBDE 33 26000 CHAN 33 67767	CADR+2 5 FLAG 11 0 CHAN 11 (1	1273 FAILRE	7, 16140 GG -01111 ES 00120 2 02242
ADST/BBP THETAD X 3 RTARG X 6 DELY X 2 PCMD ADST/BBY THETAD Y 3 TEVENT 2 ERRORX WB6D/6CY VGTIG Y -1 Z CG 1ZZ 8 WY DEG/S -1 AZSCM/S2	7.06787 6047500 9964500 19364505 8:66089 879.900 0000000 1812436 5.71407 5022979 4527.97	WZ DEG/S 1.77 XGYR08UT .000	0722 Ak 6089 Th 504* R1 3000 DE 1350 CS 2744 Ak 0947 Et 9975 YC 8506 EF 15980 S, 14094 IS 1410 IS 6505 CC	-2-11 HETAD Z -64+ HARG Z -64+	5646 TG8 46000 PACT 00000 AD8T 45215 AK2 07942 CENT 67625 LEMM 90137 W886 30518 THET 4.852 X CG 36638 IXX *8796 IYZ	**4174805 2904*310 14*37000 8FF -1:328600 / -12*30469 *1098633 ANG 61*50000 **7265434E AD Z 4**27490	THETAD DELTAR CSMMAS WB0D/0 VGTIG Y CG IYY	E1 2889.94c F 1.0676287 X 37.06787 X 37.06787 CP -1709187 X 47.18475 -3074608 79391:*48 S2 -11254765	

PROGRA	4 40	VERB 5	NBUN 9	R1 01111	R2 00000	R300000-	-FLASH-0	- DSPTAB -	+11 00000	
**412 *000 **911	22304	REFERENCE .79159081 .49491686 .35838706	ATRIX -:45106113 -:86894023 :20368291	AGC 41222364 	** 49491686	RIX * * * * 5106113 * 86894023 * 20368291		*91061163 *12314177	TUDE MATRI; •34328485 •75686836 •55615282	× •23009157 •64186215 •73148513
REFSMM, Y= Z= X*	000	GIMBAL ANGLE AIG= -77.10 AMG= 21.68 ABG= 101.36	*77°10 21*68	GC CDU *75.88 23.52 102.34	•	- :		V		
STATE SDS CI AGC CI DELTA	4	-2698576.1 -2691278.0 -7298.1	5280097:9 *300 5283016:0 *300		6838•2 =69 6067•4 =70	70.13 -2	vY 695.55 711.10 15.55	1979 81 1528 • 59 451 • 22	RSS 7731 • 00 7726 • 47 4 • 53	71ME 2889•94
SDS L AGC L DELTA	4	-3196535.3 -3196536.0			3128.2 -67		232.76 232.77 .02	1848.29 1848.36 07	7741.52 7741.53	2962.41
SDS C	М	LAT *25.82 *25.82		2246.8 38;	2709.5 2646	GEE A 881.6 829.7	39	ELEVATION 3*07	RANGE 552540+5	RANGE RATE 7.37
	8 5000 GS 0000 +1 0000 AG 7777 3 0010	FLAGWD 9 RCSFLAGS FAILRG+2 DAPDATR1 CHAN 14	40000 00001 RSBEG 421 00000 PIPA X 000 11103 DAPDATR2 111 00000 CHAN 30 373	06 RSBBQ+1 25 PIPA Y 11 REDBCTR 73 CHAN 31	00042 PIPAZ 00001 IMBDE 30 37777 CHAN 32	H 56016 CADR 00255 FLAG 036000 IM0D 77777 CHAN	10 00000 g 33 26000 33 67767	CADR+2 51 FLAG 11 00 CHAN 11 1	273 FAILRE 000 6PTM6D 420 CHAN 1	ES 00120 2 02242
CDUX ADOT / O THETARG DELV X PCMD ADOT / O THE TANT EROR X WB 0 / O V G T I G Z Z WY C M A Y S M M / A Y S M M /	BP = 138 37 X 37 X = 611 1 1 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	06787 33634. 555000 09975 663413 666089 99.900 000000 660409 99145 189.82 189.82 1992450	CDUY	RTARG Z DELV Z CSTEER AK1 ELEV YCMD ERRORZ THETAD S/C MAS SLOSH A IXZ CONFIG YGYROOU	4.563000 .0000000 .2307129 .1.07942 1.043900 43.90137 Y 55.30518 .5.30518 .7.476568 .230±0415 1.0000000	TIG TGB PACTOFF AOBT/ AK2 CENTANG LEMMASS	-19.76715 -3186035 2905.470 13.53000 -1.233700 -16.69922 .0000000 .0000000 .0000000 .54515905 44.27490 8.489776 30657.28 .1553.007 3.497356 .0000000	THETAD DELTAR CSMMASS WB6D/6C VGTIG X Y CG IYY	1.043900 P *2241287 X 37.06787 117620.0 25912.00 P *1732422 *42.30537 .3075142 79297.07 S *1.535208 2 *1273890	E+01

PREGRAM 40	VERB Neur	9 R1 -011	.11 R2 00000	R300000 FLASH-	DSPTAB +11 00000	
**41222304 *00042095 -*	ERENCE MATRIX 79159081 45106 49491686 86894 35838706 20368	113412223 023 -000420	95 - 49491686	45106113 86894023	S/C ATTITUDE MATR **9175155233712697 *1502301778498602 36823416 *51975179	1X *•21097636 •60102224 •77088332
Y= . +000 AIG Z= -+000 AMG	= 20.47 20	CDU AGC CDU *26, *77*77 *47 -20*15 *20 99*98			_	
	RX RY 712563.3 527485 705420.0 527757 -7143.3 -272	8.0 ~2999766.0	6646105.9 -706	X VY 5.20 +2384.89 9.45 +2727.16 5.76 342.27	VZ RSS 2099.76 7774.22 1534.31 7731.01 565.45 43.21	TIME 2891:94
	210100 * 8 506675 210101 * 4 506675		6653118 • 1677	8.39	1856:12 7741:53 1856:19 7741:55 -:07 -:01	2964+41
SDS LM	≈25.78 7 ₍	NG ALT 0-99 272288-1 0-95 278995-9	AP8GEE PERIG 405634.8 26449 281928.1 27232	7.531	ELEVATION RANGE 3,09 552560.6	RANGE RATE
FLAGWD 8 50000 RCSFLAGS 00001 FAILRG+1 00000 H0LDFLAG 77776	FLAGWD 9 40000 RCSFLAGS 00001 RS FAILRG+2 00000 PS DAPDATR1 11103 D	AGWD 2 02334 FLAGWD SBBQ 42106 RSBBQ+ PA X 00023 PIPA Y APDATR2 11111 REDBCT HAN 30 37373 CHAN 3	1 03434 CADRFLSH 00032 PIPAZ R 00001 IMODE 30	56016 CADR+1 7317 00244 FLAG 10 0000	0 CHAN 11 (1)400 CHAN	
CDUX 101-30 AD8T/8BP -19907 THETAD X 37-667 RTARG X +616363 DELV X 1-5211 PCMD -2-7046 AD8T/8BY 52236 THETAD Y 38-660 TEVENT 2879-9 ERR8RX 00000 WB8D/8CY -114061 VGTIG Y -9-7654 Z CG 50094 IZZ 84448 WY DEG/S 429028 AZSCM/S2 114683 AYSMM/S2 10747	169	2176504 RTAR 2.457000 DELV 2.870725 CSTE 1.886689 AK1 -64.70947 ELEV -1.209975 YCMD 64.54468 ERRO 102.3047 THE.T -5452156 S/C 44.84192 SL08 2037.537 IXZ -7903349 CBNF -0000000 YGYR	.4943848 -41:07942 -9252750 RZ 43:90137 AD Y -55:30518 MASS 1756:832 H AR -7:416582 227:0203	CDUT -19.76715 AK1 *1977539 TIG 2898.690 TG6 4.755000 PACT0FF -1.186250 AD81/ -23.73047 AK27360840 CENTANG 61.50000 WB8D/8CR +6415509 THETAD Z 44.27490 X CG 8.494091 IXX 30590.68 IYZ 1571.537 AXSCM/S2 3.505704 ZGYR88UT *0000000	YACTOFF 1.04390 AD8T/8BP .00000 THETAD X 37.0678 DELTAR 117620. CSMMASS 25912.0 E-02 WB8D/8CP -268958 VGTIG X -30.9664 Y CG .307567 IYY 79201.7 WX DEG/S -1169957 AYSCM/S2 :136086	OE=01 0 0 0 0 0 7 0 0 6 6 6 0 0 0 6 6 0 0 0 0

PROGRAM 40	- VERB	NBUN-40	R1 +0	00 03 - R2-	+00693 - R3 +	03239 FLASH (D DSPT/	AR +11 00000	
**************************************	.79159081 *.49491686	MATRIX = *45106113 - *86894023 *20368291	**************************************	22304 - 79 42095 - 49	491686 868	94023	S/C A* 91809154 •14808702 •36766672	TTITUDE MATR: 33115339 79631734 -50617743	× •58647156 •78013110
REFSMMAT ER	AIG= -76.74 AMG= 20.66	-76.74 -20.66	AGC CDU -76.57 -20.57						
X# *000 STATE VECT SDS CM AGC CM DELTA	RX ~2726304.8 ~2719562.0 ~6742.8	97:09 RY 5269380:6 5272106:0 -27:25:4	97.01 RZ -2995913.8 -2996690.0 776.2	-RSS - 6646398 • 2 6646147 • 0	-6874.46 -7073.42	*2678*39 *2745*71 67*32	VZ 1511:03 1542:05	RSS 7530:95 7742:74	TIME- 2893•94
SDS LM AGC LM DELTA	*3223648.8 *3223649.5	5060287+8	*2875022*1 *2875049*3 27*3	251.2 6653132.8 6653108.1 24.8	*6769 * 68 -6769 * 67 -01	•3260 • 19 •3260 • 21 •02	1863,93 1864-00 07	7741.55 7741.57 **01	2966:41
SDS CM SDS LM	LAT *25.75 *25.75	Leng 71 • 12 71 • 08	ALT 272333.4 278975.6	AP8GEE 428722 • 8 281951 • 2	PERIGEE 264370•5 272322•1	HTUMIZA SE•=	ELEVATION 3,11	RANGE 552888 • 5	RANGE RATE- 202.93
FLAGWD 0 00 FLAGWD 8 50 RCSFLAGS 00 FAILRG+1 00 HOLDFLAG 77 CHAN 13 00	0000 FLAGWD 9 0001 RCSFLAGS 0000 FAILRG#2 7776 DAPDATR1	40000 00001 RSBBC 00000 PIPA X	42106 RSBB 00022 PIPA 2 11111 RED0	0+1 03434 Y 00034 CTR 00001	CADRFLSH 56010 PIPAZ 0025 IMBDE 30 36000		CADR+2 C FLAG 11 CHAN 11		EG 00000 DES 00120
ADOT/OBP THETAD X TRARG X = DELV X PCMD = AOOT/OBP THETAD Y THETAD	28.02002 4579202E = 01 37.06787 3163634. .345500. .0281150. .0000000 38.66089 2879.900. .0000000. .0000000. .0000000. .0000000. .891609. .499458. 84405.90. .1398823. .1808117. .1808117.	DELVY 1.93 YCMD -545 AK 5,32 THETAD Z -64.7 PCMD -1.23 ERRØRY 7.34 THETAD X 102. VGTIG Z -524 JET FUEL 45.4 IXY 2037 WZ DEG/S -524 XGYRØBUT -006	2668E-01 AK 66089 TH 1504 RT 10500 DE 16750 CS 18369 AK 193700 YC 193854 EK 3047 TH 18070 S/ 12029 SL 17750 LX	3 - 6.4 . ARG Z - 64 . ARG Z - 123 E LV Z 11 . TEER - 000 1 215 EV 41 . MD . 85 . RGRZ 43 . ETAD Y - 55 . C MASS 175 6 SH AR - 7 . 33 . Z . Z . NFIG 1 . 00	1646 TG 11500 PA 100000 AD 17266E-01 AK 17942 CE 11000 LE 100137 WB 10518 TH 12.832 X 165364 IX 18464 IY 100000 AX	-3295899 6 2899.660 6 27.730000 CTBFF +1.233700 ETAP	DELL PIPT YACT AD01 THET DELT CSMM WB0D VGTI Y CG IYY NX OAYSC	**769043 T4 1139.65 IME1 2895.94 8EF 1:11507 8BF 000000 AD X 37.0678 AR 117620** ASS 25912** 000000 G.X **000000 G.X **2000000 G.X **2000000 F.X **20000000 F.X **200000000000000000000000000000000000	DE -01 0 5 5 7 7 0 0 0 0 0 7 7 7 7 7 7 7 7 7 7

PROGRAM 40 VERB 61	NBUN 40 R	1 -00 03 K2 +00693	R3 +03239 FLASH 0	DSPTAB +11 0000	00
SDS RFFERENCE M. 79159081 *00042095 -**9491686 -*91108286 -*35838706	451C6113 86894023	AGC REFERENCE MAT 41222304 .79159081 0004209549491686 9110828535838706	45106113 86894023	S/C ATTITUDE M. •91672659334605 •149465327939567 •37050295 -5076135	46 - •21829247 28 •58931589
REFSMMAT ER GIMBAL ANGLE Y= *000 AIG= *76*93 Z= **000 AMG= 20*79 X= *000 AMG= 97*32	SDS CDU AGC CD *76.93 *76.6 20.79 20.7 97.32 97.2	'4		-	•
STATE VECT RX SDS CM -2740086•1 AGC CM -2733712•0 DELTA -6374•1	RY RZ 5264037.0 -2992796. 5266596.0 -2993598. -2559.0 801.	2 6646426.6 -68 0 6646190.2 -70	VX	VZ RS: 1556.76 7552. 1550.19 7753. 6.58 -200.	99 2895•94 82
SDS LM +3237179.4 AGC LM +3237180.1 DELTA +6	5053753.8 -2871286. 5053705.2 -2871313. 48.5 27.	5 6653098 0 +67	60.93	1871.73 7741.1 1871.80 7741.1 070	58
P8SITION LAT SDS CM +25.71 SDS LM +25.72	L0NG ALT 71.26 272382. 71.22 278955.	9 451747.3 2643	GEE AZIMUTH 64.533 18.3	ELEVATION RANGI 3:11 553249	
FLAGWD 0 00200 FLAGWD 1 FLAGWD 8 500000 FLAGWD 9 RCSFLAGS 00001 RCSFLAGS FAILRG+1 00000 FAILRG+2 HBLDFLAG 77775 DAPDATRI CHAN 13 00100 CHAN 14	40000 00001 RSBBG 42106 F 00000 PIPA X 00022 F 11103 DAPDATR2 11111 F	PIPA Y 00035 PIPAZ REDOCTR 00001 IMODE 30	56016 CADR+1 73174 00253 FLAG 10 00000 36000 IMBDE 33 26000	CADR+2 51273 FA CADR+2 51273 FA CHAN 11 01400 CH	AGWD 7, 16140 ILREG 01111 TM8DES 06120 AN 12 02242
ADET/RBP .0000000 THETAD X 37.06787 RTARG X .6163634. DELV X 1.345500 PCMD -1.115075 ADBT/BBY .3439934E-02 THETAD Y 38.66689 TEVENT .0899.060 ERRBRX .0000000 WBBD/BCY .0000000 VGTIG Y -1.72928 Z CG .4987240 IZZ .84372.52 WY DEG/S .8392937E-01	CDUY	CDUZ 20.68726 AK 5.339355 THETAD Z -64.70947 RTARG Z -1235646* DELV Z 11.75850 CSTEER .000000 AK11977539 ELEV +1.07942 YMM 1.091350 ERRBRZ 43.90137 THETAD Y -55.30518 S/C MASS 1749.757 SUBSH AR -7.309920 IXZ 221.3135 CONFIG 1.000000 YGYRBBUT .000000	CDUT -19.76715 AK1 -11428273 TIG 2899.060 TGB 27.730000 PACTBFF -1.8233700. AD8T/ 30.76172 AK2 -24.16992 CENTANG 61.5000000 WB8D/6CR 0000000 WB8D/6CR 0000000 THETAD 2 44.27490 X CG 8.502293 IXX 30.473.22 IYZ 1604.225 AXSCM/S2 -193274031 ZGYR98UT +00000000	PIPTIME1 2897 YACTOFF 1-11 A0001/08P 272 THETAD X 37.0 DELTAR 1176 CSMMASS 2594 WB0D/BCP .000 VGTIG X 99.01 Y CG .307 IYY 7902 WX DEG/S .524 AYSCM/SZ114	6035 -650 -940 5075 -790E-01 6787 20.0 000 0000 9279 6639 7.18

TAPE WEDB RUN 6 VERIFICATION C4.18A TEST RUN DATE 10/23/68 EDIT DATE 230CT68 SDS TIME 2971 AGC TIME 2901.07 ID 774 PAGE 86	TAPE WEDB RUN	6 VERIFICATION C4:18A	TEST RUN DATE	10/23/68 EDIT	DATE 238CT68	SDS TIME	2971 AGC TIME	2901.07 10 774	PAGE 86
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PREGRAM 40 VERB	06 NBUN-40	R1 +00 02 R2 +	-00078 - R3 +0398	7 FLASH 1	DSPTAB +11	. 00400
SDS REFERENCE *791590 *00042095 **494916 *991108286 **358387	41 45106113	100042095 #1494	CE MATRIX 590814510611 916868689402 838706 -2036829	3 +1	5015817 **79	E MATRIX 072983921977425 0258227 -59098721 0797915 -77616572
REFSMMAT ER GIMBAL AN Y= *000 AIG= *77* Z= -*000 AMG= 2G* X= *000 ABG= 97*	04 -77.04 -76 95 -20.95 -20					
STATE VECT RX SDS CM =2747152 AGC CM =2747870 DELTA 717	0 5261050 0 -299049	5+8 6645008+0		VY =1671.82 =2782.35 =1110.53	1558 • 34	RSS TIME 799•14 2897•94 7765•54 966•40
9D\$ LM *3250692 AGC LM *3250693 DELTA	2 5047143+8 -286756			*3287*55 *3287*57 *02		7741.59 2970.41 7741.60 **01
POSITION LA SDS CM =25. SDS LM =25.	68 71.39 27243		PERIGEE 262948.6 272314.5	AZIMUTH. F	ELEVATION 3:28 50	RANGE RANGE RATE 60267.9 3057.20
FLAGWD 8 50000 FLAGWD RCSFLAGS 00001 RCSFLA FAILRG+1 00000 FAILRG HOLDFLAG 77776 DAPDAT	1 00001 FLAGWD 2 00334 9 40000 8 40000 RSBBC 42106 +2 00000 PIPA X 77777 R1 11113 DAPDATR2 11111 4 00000 CHAN 30 37373	RSBBQ+1 03434 0	CADRFLSH 56016 CA PIPAZ 00076 FL IMODE 30 36000 IF	AGWD 5 40202 ADR+1 73174 AG 10 00000 18DE 33 26000 AN 33 67765	CADR+2 5127 FLAG 11 0000 CHAN 11 01446	O OPTMODES 00120
CDUX 97.39380 AD01/08P .0000000 THETAD X 7.06787 RTARG X .6163634. DELV.X 1.170000 PCMD -9727250 AD01/08P .0000000 THETAD Y 38.66089 TEVENT 2899.060 ERRORX .0000000 WB6DL/4 .00000000 WB6DL/4 .0000000 WB6DL/4 .00000000 WB6DL/4 .000000000 WB6DL/4 .000000000000000000000000000000000000	XGYR88UT .0000000 '	YGYRBBUT .000	2725 AK1 2725 AK1 2725 AK1 2747 TIG 6446 TIG 8850 PACTOFF 6488 AK2 7942 CENTANG 0175 LEMMASS 0137 W\$0D/30 0518 THETAD .757 X CG 9920 IXX 3135 IXZ 0000 AXSCM/5	1.318359 .153886 3.61.50000 8.0000000 CR.0000000 Z.44.27490 8.502293 30473.22 1604.225	ADOT/ AK2. DELLT4 PIPTIME1 YACTOFF ADOT/OBP THETAD X DELTTAR CSMMASS WBOD/OCP YOTIG X Y CG IYY WX DEG/S AYSCM/S2 AXSMM/S2	3.515625 .1977539 1139.650 2899.940 1.115075 .3309176E*02 37.06787 117620.0 25940.00 .0000000 1.109219 .3076639 79027.18 .5245586E*01 .1608977E*02 .278689*E*02

PROGRAM 40 VERB 16	NBUN 40	R1 +00 02 R2	+00187 R3 +04	106 FLASH 1	DSPTAB +1	1 00400
SDS RFFERENCE 41222304 -79159081 -0004209549491686 9110828635838706	-:45166113 -:86894023	.00042095494	NCF MATRIX 159081 45106 491686 86894 838706 20368	023 • 1	150963317	DE MATRIX 401584622136092 9123831 -59258056 0816703 -77449822
REFSMMATER GIMBAL ANGL Y= *000 AIG= *77*16 Z= **000 AMG= 21*12 X= *000 ARG= 97*59	-77·16 -76 21·12 21					
STATE VECT RX SDS CM -2774050.2 AGC CM -2776196.0 DELTA 2145.8	5249852 0 -298422	4.0 6646337.6	-VX -7097·32 -7078·95 -18·37	VY -2824.46 -2815.95 -8-51		RSS TIME 7800.53 2901.94 7779.66 20.87
SDS LM -3264188 • C AGC LM -3264188 • 6 DELTA -66	5040555.0 -286379		=6743*33 =6743*32 =*01	-3301·21 -3301·23 -02		7741.60 2972.41 7741.62
p8517.18N LAT SDS CM =25.64 SDS LM =25.64		8 • 1 457828 • 2	PERIGEE 262670 • 7 272310 • 6	AZIMUTH 606	ELEVATION 3.26 5	RANGE RANGE RATE 46055•3 -68•30
FLAGWD 0 00200 FLAGWD 1 FLAGWD 8 50000 FLAGWD 5 RCSFLAGS 00013 RCSFLAGS FAILRG+1 00000 FAILRG+E HOLDFLAG 00000 DAPDATR1 CHAN 13 00100 CHAN 14	7 40000 5 00011 RSBBQ 42106 2 00000 PIPA X 77777 1 11113 DAPDATR2 11111	RSBBQ+1 03434 PIPA Y 77777	CADRFLSH 56016 PIPAZ 00002 IMEDE 30 36000	FLAGWD 5 40202 CADR+1 73174 FLAG 10 00000 IMBDE 33 26000 CHAN 33 67765	FLAGND 6 3000 CADR+2 5016 FLAG 11 0000 CHAN 11 0144	O FAILREG 01111 O OPTMODES 00120
CDUX 97.53662 ADBI/8BP .0000000 THETAD X 37.06787 RTARG X -6163634. DELV X .00000000 ADBI/8BY .6757156E_01 THETAD Y .76.86035 TEVENT 2899.060 ERRBRX 2197266E_01 WBBD/8CY .0000000 VGTIG Y 3.336716 Z CG .44987240	CDUY -76*80542 AD0176BY -0000000 THETAD Y 38*66089 RTARG Y 2176504* DELV Y *0000000 AK *0000000 THETAD Z 21*07178 PCMD *0000000 ERRBRY *3295899E*01 THETAD X 102*3047 VGT1G Z *1,325607 JET FUEL *45*42139	THETAD Z =64.7 RTARG Z =1235 DELV Z 3.62 CSTEER .000 AK1 .600 ELEV -41.0 YCMD .000	0000 AK1 0947 TIG 646- TG0 7000 PACT0 0000 ABT7 0000 AK2 7942 CENTA 0000 LEMMA 8633E-01 WB0D/ 0518 THETA X CG	*6719605E*(*0000000 NG 61*50000 SS *0000000 ØCR *0000000	ADOT/ AK2 DELLT4 PIPTIME1 OI ADOT/OBP THETAD X DELTAR CSMMASS WBOD/OCP VGTIG X Y CG IYY	1:115075 :8682311E-01 97:61353 117620:0 25940:00
IZZ 84372.52 WY DEG/S .9791760E-01 AZSCM/S2 .6086130E-02 AYSMM/S25181370E-02	IXY 2037.933 WZ DEG/S .5595292E-01 XGYR88UT .0000000 AZSMM/S2 ,2485314E-02	IXZ 221. CONFIG 1.00 YGYROOUT .000	3135 IYZ 00000 AXSCM 00000 ZGYR0 05779E=02	1604.225 /S2 .8861033E-	WX. DEG/S	.4546174E=01 1142607E=02 .2547083E=02

PROGRAM 40	VERE 16	NOUN 40	R1 +00 02 R2	+00190 R3 +0	4110 - FLASH 1	- DSPTAB +	11 00400	
* 41222304 * 00042095	49491686	*45106113 *86894023	• 41222304 - • 7: • 00042095 - • 4:	ENCE MATRIX 9159081 = .4510 94916868689 5838706 .2036	4023	91235781 15181756	UDE MATRIX 34320164- 78994370 50813460	• 22319579 • 59408760 • 77281499
Y= +000 AIC Z= -+000 AMC	MBAL ANGLE 3= -77 • 28 3= 21 • 31 5= 97 • 72							
AGC CM -:	2774005.0 5	RY 5250326•7 *298196 5249852•0 *298422 474•7 226	2 · 9 6644782 · 7 4 · 0 6646337 · 6	-7 ₀ 97 • 25 -7 ₀ 78 • 95 -18 • 30	VY =2823:32 =2815:95 =7:37	VZ- 1578 • 58 1575 • 41 3 • 17	RSS 7799 • 62 7779 • 66 19 • 96	2901.94
		5033987 • 5 • 285998 5033938 • 9 • 286001 48 • 6		-6734·46	=3314+85 =3314+86 +02	1895 • 07 1895 • 14 - • 07	7741.62 7741.64 01	2974 • 41
POSITION SDS CM SDS LM	LAT -25.60 ~25.61	L6NG AL 71.66 27254 71.62 27889	1 * 4 457913 * 5		AZIMUTH 07	3.30	RANGE 1 561565•0	RANGE RATE
FLAGWD 0 00200 FLAGWD 8 50000 RCSFLAGS 00011 FAILRG+1 00000 H0LDFLAG 00000 CHAN 13 00100	FLAGWD 1 0000 FLAGWD 9 4000 RCSFLAGS 0000 FAILRG+2 0000 DAPDATR1 1111 CHAN 14 0000	00 11 RSBBQ 42106 00 PIPA X 77777	RSBBQ+1 03434 PIPA Y 77777 REDOCTR 00001	CADRFLSH 56016 PIPAZ 77677 IMBDE 30 36000	FLAGWD 5 40202 CADR+1 73174 FLAG 10 00000 IM0DE 33 26000 CHAN 33 67765	CADR+2 501 FLAG 11 000 CHAN 11 014	60 FAILREG	01111
THETAD X 97.61 RTARG X -61636 DELV X .0000 PCMD .0000	220E=01 AD0 353 THE 34 RTA 000 DEL 000 YCM 337E=01 AK	T/6BY •6669984E=01 TAD Y =76.86035 RG Y 2176504. V Y •0000000	AK+43 THETAD Z 21. RTARG Z -123 DELV. Z -111 CSTEER -00 AK116		6591797E 2899-060 2-730000 0FF -1-233700 6091968E 9887696E	DELLT4 PIPTIME1 YACTBEF AD8T/88P	1 • 1.15075 • 8978695E	701
TEVENT 2899. ERRORX 1098 WB0D/6CY 0000 VGTIG Y 3.378 Z CG 44987 IZZ 44372 WY DEG/S 1084 AZSCM/SZ 4687 AYSMM/SZ 4541	060 PCM 633 ERRI 000 THE 582 VGT 240 JET *52 IXY 088 WZ	D +0000000 ORY +2307129 TAD X 102+3047 IG Z -1.349354 FUEL +5.42151	YCMD .00 ERRBRZ .13 THETAD Y .55. S/C MASS 174 SLBSH AR -7.3 IXZ .21 CONFIG 1.00 YGYRBBUT .00	00000 LEMM 18359 W88D 30518 THET 9.757 X CG 09920 IXX .3135 IYZ	ASS +0000000 /OCR +0000000 AD Z 44+27490	CSMMASS WB0D/0CP VGIIG X Y CG IYY WX DEG/S	4.520226 .3076639 79027.18 .4546174E 1142607E	-02

PROGRAM 4	0 VERB 16	NBUN 40	1	R1 +00 02	R2 +00078	R3 +042	33 FLASH-1	- DSPTAR	B +11 00400	
SD	S REFERENCE	ATRIX		AGC F	REFERENCE MA	TRIX		S/C AT	TITUDE MATRI	v
4122230		45106113	194	.41222304	- 79159n81	451061	13	91066480	34637237	- · 2252n161
*0004209	5 - + 49491686	- *86894023		00042095	49491686	868940		15274620	- 18873754	•59545040
9110828	635838706	•20368291	-	91108285	-,35838706	•203682	91 ("	38387251	•50785661	•77118278
REFSMMAT F	R GIMBAL ANGLE	SDS CDU	AGC C	ni)						
Y= +00		-77:41	-77.							
Z= - +00		21.51	21 -						•	
X= +00		97 * 85	97.							
STATE VECT	RX	RY	RZ	RSS		-VX	VY	V.7	RSS	TIME
SDS CM	-2788190+2	5244666.7	-2978796			7088.72	-2837·55	1586 • 61	7798 • 65	2903.94
AGC CM	-2790346.0	5244206 • 0	-2981066			7071.50	-283n · 24	1583.55	7779.72	2-03474
DELTA	2155,8	460.7	2269		559+0	-17.22		3 • 05	18.93	
	-									
SDS LM	-3291125.9	5027344.2	-2856188			5725 + 58	*3328 • 47	1902.84	7741 . 64	2976 • 41
AGC LM DELTA	~3291126.5	5027295.5	-2856214			5725 • 57	=3328 · 48	1902.91	7741 • 65	
DELIA	+5	48 • 6	26	* D	25 • 1	01	• 02	- * 07	- + 01	
POSITION	LAT	LONG	ALT			RIGEE	AZIMUTH	ELEVATION	RANGE	RANGE RATE
SDS CM	-25 • 57	71 * 80	272595			2604.3	07	3.30	561432.3	-66.21
SDS LM	-25 • 57	71 • 75	278873	•5 5850	067 • 7 272	5305 • 8				
FLAGWD 0 0			2 00334	FLAGWD 3 1	0004 FLAGND	4 10000 F	LAGWD 5 40202	FLAGND 6	30000 FLAGWD	7 14140
FLAGWD 8 5										
RCSFLAGS O							ADR+1 73174		50160 FAILRE	
FAILRG+1 0		00000 PIPA X			7777 PIPAZ		LAG 10 00000 MBDE 33 26000			ES 00120
HOLDFLAG O				REDOCTR OF			HAN 33 67765	CHAN 11	01440 CHAN 1	2 00040
CHAN 13 0	OTGO CHAN 14	00000 CHAN 3	03/3/3	CHAN 31 3	//// CHAN 3	2 1.1111 - L	.CO/10 CC NAH.			
	97 • 80029		03613	CDUZ	21.35742	CDUT	-19.76715	ADOT/		
	.9187907E-01		81822E-01	AK	131.8359	AK1	2746582	AK2	1428223	
	97 • 61353	THETAD Y -76 .			21 • 07178	TIG	2899.060	DELLT		
	6163634 *		6504 •	RTARG Z	-1235646.	TGO	2.730000	PIPTI		
DELV X .	*000000C		00000	CSTEER	.=3+744000	PACTOR ADOT/	F ~1 • 233700. •5202815E	YACTO		
	*0000000 *6007478F=01		00000 47949	AK1	*0000000 *.3515625	AK2	2087402	THETA		
THETAD Y -		THETAD Z 21.		ELEV	=41 * 07942	CENTAN		DELTA		
TEVENT	2899 • 060		00000	YCMD	•0000000	LEMMAS		CSMMA		
ERRORX	*1867676		74805	ERRORZ	•2416992	WB8D/8		WB8D/		
	*000000C	THETAD X 108			-55.30518	THETAD		VGTIG		
	2.036858		67958	S/C MASS		X CG	8.502293	Y CG	.3076639	
Z CG	•4987240		42249	SLOSH AR	-7.309920	IXX	30473 * 22	IYY	79027.18	
IZZ	84372.52		7.933	Ixz	221.3135	I.YZ	1604 225		G/S +3846763	
	*1154029		96469E-01	CONFIG	1 .000000		S2 ++9327403E		1/52 1422429	
	.6004516E-02		00000	YGYROOUT		ZGYR06	*0000000	AXSMM	1/52 •2438078	E=05
AYSMM/S2 .	.5715495E-02	AZSMM/S2 .72	66999E-03	ARSMM/S2	.6256133E#	02				

PROGRAM 40	VERB 16	NBUN 40	R1 +C	0 02 R2	+00076 R3 +0	4352 FLASH 1	DSPT	AB +11 00400	
SDS -**41222304 *00042095 -*91108286	REFERENCE 79159081 49491686 35838706	-:45106113 -:86894023	**************************************	2304 *7	ENCE MATRIX 91590814510 94916868689 5838706 •2036	4023	S/C A •90887594 •15369511 •38771415	TTITUDE MATRIX 34962940 78760743 -50737882	-•22738504 •59670115 •76957345
REFSMMAT ER Y= .000 Z=000 X* .000	GIMBAL ANGL AIG= -77.54 AMG= 21.73 A8G= 97.96	•77•54 21•73	AGC CDU +77.23 21.67 97.99			`			
STATE VECT SDS CM AGC CM DELTA	RX -2802359.6 -2804478.0 2118.4	5238532 • 0	RZ -2975614•5 -2977892•0 2277•5	RSS 6644876*7 6646439*3 =1562*6	-7060:49	-2851 • 02 -2843 • 13 -7 • 89	VZ 1595*73 1590*91 4*82	RSS 7795•78 7775•92 19•85	TIME 2905•94
SDS LM AGC LM DELTA	-3304568.2 -3304568.7	5020625.0	-2852374.6 -2852401.0 26.4	6653072+6 6653047+5 25+1	-6716.64	*3342*07 *3342*09 *02	1910.59 1910.66 07	7741 • 66 7741 • 67 - • 01	2978 • 41
SDS CM SDS LM	=25.53 =25.53		ALT 272649.5 278852.6	AP8GEE 458001 * 2 282091 * 2		AZIMUTH = +08	3.29	RANGE 561300•3	RANGE RATE
FLAGWD 0 002 FLAGWD 8 500 RCSFLAGS 000 FAILRG+1 000 H6LDFLAG 000 CHAN 13 001	00 FLAGWD 9 11 RCSFLAGS 00 FAILRG+2 00 DAPDATR1	40000 - 00010 RSBB0 00000 PIPA X 11113 DAPDATR	42106 RSBB0 77777 PIPA 2 11111 RED80	0+1 03434 Y 77777 CTR 00001	FLAGWD 4 10000 CADRFLSH 56016 P1PAZ 77703 IMEDE 30 36000 CHAN 32 77777	FLAGWD 5 40202 CADR+1 73174 FLAG 10 00000 IMBDE 33 26000 CHAN 33 67765	CADR+2 FLAG 11 CHAN 11	50160 FAILREG	7 14140 3 01111 25 00120 2 00040
ADST/8BP .9 THETAD X 97 RTARG X -61 DELV X .0 PCMD .0 ADST/8BY .5 THETAD Y -76 TEVENT 28	*92114 484292E-01 *61353 63634 * 000000 000000 693660E-01 *86035 99.060	CDUY -77-1 ADBT/8BY :583 THETAD Y -76-8 RTARG Y 2176 DELV Y :000 YCMD :000 AK -241 THETAD Z 21:0 PCND :000	3135E-01 AK 6035 THE 504* RT/ 0000 DEL 0000 CS 6992 AK: 7178 ELE		55518 CDUT 177539 AK1 07178 T1G 56466 TG8 27000 PACT 00000 AD81 12891 AK2 07942 CENT 00000 LEM	4614258 2899.060 2.730000 0FF -1.233700 .4557744E 3186035	ADOT AK2 DELL PIPT YACT THET DELT CSMM,	26367 ₁ 9 T4 1139-650 IME1 2907-940 0FF 1-115075 /0BP 97109388 AD X 97.61353 AR 117620.0	

.3515625

221 • 3135

1.000000

.0000000

.1774242E-02

THETAD Y -55.30518

S/C MASS 1749,757

SI USH AR -7 - 309920

ERRORZ

CONFIG

YGYROOUT

ARSMM/S2

IXZ

WB8D/8CR

THETAD Z

X CG

Ixx

IYZ

.0000000

8,502293

30473.22

1604 . 225

AXSCM/S2 -. 9327403E-03

ZGYROSUT .0000000

44.27490

*0000000

.3076639 79027.18

WBOD/OCP

Y CG

IYY

VGTIG X -2.195263

WX DEG/S .2797646E-01

AYSCM/S2 - . 1515703F-02

AXSMM/S2 +1253558F=02

ERRORX

WBOD/BCY

WY DEG/S

AZSCM/S2

VGTIG Y

Z CG

IZZ

.2636719

.7369995

•4987240

84372.52

-1154029

AYSMM/S2 -.1526070E-03

IXY

ERRORY

THETAD X

VGTIG Z

JET FUEL

WZ DEG/S

XGYR00UT

.6152344

102,3047

.1519203

45 • 42249

2n37 · 933

.0000000

AZSMM/S2 - 1246291E-02

.4895880E+01

									_
PROGRAM 40	VERB 16	NOUN 40	R1	+00 02 R2	+00180 R3 +0	4467 FLASH 1	DSPTAB	3 +11 00000	
SDS	REFERENCE	MATRIV		AGC REFER	ENCE MATRIX		S/C ATI	TITUDE MATRIX	
41222304			· • 4		9159081 4510	6113	90694928		+2297976n
+00042095		86894023			9491686 8689		15469956		•59782743
91108286	35838706	.20368291	- • 9	1108285 3	5838706 •2036	8291	39180422	*50664902	76798081
REFSMMAT FE	S GIMBAL ANGL	E SDS COL	AGC COU						
Y= +00(~77+37						
Z= -+000			21 • 88			,	,	*	
X = = 000	A0G= 98+07	98.07	98 • 09						
STATE VECT	- RX	Ry	RZ -	RSS-	VX	- VY	VZ	RSS	TIME
SDS CM	-2816513.3		-2972416 • 3		-7073 - 23	-2866 - 53	1602.58	7798 • 45	2907.94
AGC CM	-2818588+0		-2974702 • 0		-7049 • 56	-2856 • 05	1598 • 27	7772.24	2201121
DELTA	2074.7	427.5	2285 • 7		-23+67	-10.48	4 . 31	26+21	
	-						-		
SDS LM	-3317992 - 5		-2848545 . 7		-6707.69	*3355 • 65	1918:33	7741.67	2980.41
AGC LM	-3317993.0		-2848572 · C		-6707 - 68	*3355 * 67	1918 - 40	7741 • 69	
DELTA	•5	48 . 7	26 • 3	25 • 2	-+01	• 02	~•07	01	
.position	LAT	LONG	ALT	APEGEE	PERIGEE	AZIMUTH	ELEVATION		RANGE RATE
SDS CM	-25.49		272704 • 2		262577 • 2	-•09	3 • 29	561168+9	~65·83
SDS LM	-25.50	72.02	278831 * 9	282114 • 8	272294 • 8				
FLAGWD O C			2 00334 FL	AGWD 3 10004	FLAGWD 4 10000	FLAGND 5 40202	FLAGWD 6	30000 FLAGNO	14140
FLAGWD 8 5									
RCSFLAGS O				SBBQ+1 03434	CADRFLSH 56016	CADR+1 73174		50160 FAILREG	00000
FAILRG+1 O				PA Y 77777 DBCTR 00001	PIPAZ 77705 IMBDE 30 36000	FLAG-10 00000 IMBDE 33 26000		00000 8PTM8DES	
HOLDFLAG O				AN: 31 37777		CHAN 33 67765		01440 CHAN 12	00040
 CHAN 12 O	CIOO CHAN 14	DOODO CHWK 30	3/3/5 U	44V 21 31111	CHAN 3E ////	CHWN 33 81183			
CDUX	98 • 05298	CDUY -77 + 2			77490 CDUT		ADOT/		01
	.9920151E-01	AD01/08Y .569			36719 AK1	6701660	AK2	3955078	
	97 • 61353	THETAD Y -76.8			07178 TIG	2899 • 060	DELLT		
	6163634.		504,		5646. TGB 10000. PACT	2.730000 GFF. =1.233700	PIPTI		
	*.0000000 *0000000	DELV Y	0000		00000 AD81				*
	•5745963E=01	AK296			10156 AK2	4284668	THETA		
THETAD Y =		THETAD Z .21.0				ANG 61.50000	DELTA		
	2899 ± 06C		0000			1ASS •0000000	CSMMA		
	•3076172		9473			78CR +0000000	WB8D/		
	•0000000	THETAD X 102		THETAD Y -55.	30518 THE	AD Z 44.27490	VGTIS	X -5.393124.	
	.5208969		7946		9,757 X C		Y CG	.3076639	
	+4987240		2261	SLOSH AR -7.3		30473.22	IYY	79027 • 18	
	84372.52		•933		•3135 IYZ	1604.225	WX_DE		
	•1258940		5586E=01			M/S2 - 9327403E		/S2 1422429E	
	*2996428E*02		00000			0000000 TUBBS	AXSMM	/S2 •1816750E	-02
AYSMM/S2 -	.2932234E-Q2	AZSMM/S2221	6435E-03	ARSMM/S2 .34	56545E=02				

PREGRAM 40 VERB 16	NBUN 40	R1 +00 02 R2 +	00289 R3 +04578	FLASH 1	DSPTAB +11	1 00000
SDS REFERENCE N -*41223304 *79159081 *00042095 **49491686 **91108286 **35838706	-:45106113 -:86894023	.00042095494	CE MATRIX 59081 **45106113 91686 **86894023 38706 *20368291	• 15	5574145 78	DE MATRIX 566072023243523 8554296 -59888887 0572109 -76635885
REFSNMAT ER GIMBAL ANGLE Y= *000 AIG= *77*80 Z= *000 AMG= 22*21 X= *000 A0G= 98*17	-77.80 -77 -22.21 22					
STATE VECT RX SDS CM =2830652.5 AGC CM -2832676.0 DELTA 2023.5	RY 5227514·1 -296920 5227106·0 -297149 408·1 -229	1•2 6644971•9 8•c 6646539•8				RSS TIME 7799*51 2909*94 7768*68 30*83
SDS LM +3331398*9 AGC LM +3331399*4 DELTA +5	5007251 • 0 • 284470 5007202 • 3 • - 284472 48 • 7 2					7741.69 2982.41 7741.7001
POSITION LAT SDS CM -25.46 SDS LM +25.46	Leng AL 72.20 27275 72.16 27881	9.3 458087.3	PERIGEE 262564+3 272290+8	AZIMUTH E		RANGE RANGE RATE 61037 • 4 • 66 • 78
FLAGWD 0 00200 FLAGWD 1 FLAGWD 8 50000 FLAGWD 9 RCSFLAGS 00010 RCSFLAGS FAILRG41 00000 FAILRG42 HELDFLAG 00000 DAPDATR1 CHAN 13 00100 CHAN 14	40000 00011 RSBBG 42106 00000 PIPA X 7777 11113 DAPDATR2 11111	PIPA Y 77777 F REDOCTR 00001	CADRFLSH 56016 CAD PIPAZ 77710 FLA	DR+1 73174 AG 10 00000 BDE 33 26000		
CDUX 98.14087 ADBT/BBP 10.46062 THETAD X 97.61353 RTARG X -6163634. DELV X .0000000 ADBT/BBY .5850569EC1 THETAD Y -76.86035 TEVENT 2899.060 ERRBRX .3515625 WBBD/ACY .0000000 VGTIG Y -1.736832 Z CG .4987240 IZZ 84372.52 WY DEG/S .1398823 AZSCM/S2 .6086130E-02 AYSMM/S2 .5759097E-C2	CDUY -77.42065 AD61/6By +5815700E-01 THETAD Y -76.86035 RTARG Y 2176504 DELV Y .0000000 AK .3515625 THETAD Z 21.07178 PCMD .0000000 ERRBRY 1.02.3047 VGTIG Z 1.557827 JET FUE 1 5.42297 IXY 2037.933 WZ DEG/S .4196469E-01 AZSMM/S2 .8066369E-03	THETAD Z 21.0 RTARG Z -12356 DELV Z -3.39: CSTEER .0000 AK1 -1.02: ELEV -41.0 YCMD .0000 ERRORZ .582: THETAD Y -55.3 S/C MASS 1749 S_USH AR -7.30: IXZ .221: CONFIG 1.000:	5898 AK1 7178 TIG 7478 TIG 7464 TG8 3000 PACTBEF 0000 AD8T/ 1729 AK2 7942 CENTANG 0000 LEMMASS 2754 WB8D/8CF 1518 THETAD 2 757 X CG 9920 IXX 3135 IXZ 0000 AXSCM/SZ	*3302470E=0 *5493164 61.50000 *0000000 *00000000 2.44.27490 8.502293 30473.22 1604.225 2.9327403E=0	DELLT4 PIPTIME1 YACTOFF 1 ADÖT/8BP THETAD X DELTAR CSMMASS WBBD/8CP VGTIG X Y CG IYY WX DEG/S	*3563986E-01 *4,4943848 1139*650 2911*940 1*115075 *1082674 97.61353 117620*0 25940*00 *0000000 *8,484364 *3076639 79027*18 *2797646E-01 *1515703E-02 *2587052E-02

PROGRAM 40	VERB 16- NOUN 4	R1- +0	00 02 R2 +00393	R3 +04684 - FLAS	H 1 DSPTA	B +11 00000	
***************************************	RENCE MATRIX 79159081 45106111 89491686 86894022 85838706 2036829	• 0004	+2095 -+49491686	TRIX =:45106113 -:86894023 :20368291	S/C AT 90267086 -15681028 40074420	TITUDL MATRIX 36032295 78454900 -50462890	- 23527217
Y= . *000 AIG: Z= **000 AMG:	SAL ANGLE SDS CD1 = -77.94 +77.99 = 22.48 22.41 = 98.27 98.2	-77.62 22.39					
	RX RY 344776.7 5221741.0 346742.0 5221356.0 1965.3 385.0	-2968280+0	6646592 • 0 -7	VX VY 259.86 -2894.21 227.89 -2881.96 -31.97 -12.25	VZ 1621.70 1613.05 8.65	RSS 7800 • 51 7765 • 23 35 • 28	TIME 2911•94
	344787.2 5000499. 344787.7 5000450. .4 48.	32840867.5		689.65 -3382.77 689.64 -3382.78 -01 02	1933 • 78 1933 • 85 • 07	7741•71 7741•72 -•01	2984.41
POSITION SDS CM SDS LM	LAT L8Ng -25.42 72.3 -25.42 72.2		458128 • 5 262	IGEE AZIMUTH 552 • 4 -• 10 286 • 8	ELEVATION 3.28	RANGE 566906.3	RANGE RATE #67•69
FLAGWD 8 50000 F RCSFLAGS 00011 F FAILRG+1 00000 F HOLDFLAG 00000 F	FLAGWD 9 40000 RCSFLAGS 00011 RSBB FAILRG+2 00000 PIPA DAPDATR1 11113 DAPD	3 42106 RSBB	Y 77777 PIPAZ CTR 00001 IMODE 3	H 56016 CADR+1 73 77712 FLAG 10 00 0 36000 IMODE 33 26	3174 CADR+2 0000 FLAG 11 0000 CHAN 11	30000 FLAGWD 50160 FAILREG 00000 BPTMBDE: 01440 CHAN 12	00000
CDUX 98.250' AD8T/8BP 11210' THETAD X 97.613' RTARG X -616363' DELV X .00000' PCMD .00000' AD8T/8BY .58331' THETAD Y -76.866' TEVENT 28.99.0' ERR8RX .40649' W880POCY .00000' VGTIG Y 2.8899' Z CG .49872' IZZ .84372.' WY DEG/S .15387' AZSCM/S2 .53085	29	5.86035 THI 176504. RT. 0000000 DEI 0000000 CS: 3955078 AK 1.07178 ELI 0000000 YC .362305 ER: 02.3047 THI .213097 S/ .42310 SL 037.933 IX 4196469E-01 C8 0000000 YG	-,3735352 ETAD Z 21.07178 ARG Z +1235646. LV Z -3.217500 TEER -0000000 1 +1.296387 EV +41.07942 MD -0000000 RBRZ +6921387 ETAD Y -55.30518 C MASS 1749.757 85H AR -7.309920	AK265917 CENTANG 61.500 LEMMASS .00000 WBBD/MGR .00000 THETAD Z 4+.27' X CG 8.5002' 1XX 30473. 1YZ 1604.2 AXSCM/S2 .00000 ZGYRBBUT .00000	264 AK2 260 DELLT 200 PIPTI 200 YACTE 218E-01 ADBT/ 297 THETA 200 DELTA 200 CSMMM 200 WB80/ 293 YCG 222 IYY 225 WX DE 200 AYSCM		-01 -02

PROGRAM 40	VERB 16	NOUN 40	R1 +00	.02 R2 -	+00494 R3 +04	786 FLASH 1	DSPTAB +	11 00000	
SDS 41222304 	REFERENCE *79159081 49491686 35838706			304 •791 095 ••49	NCE MATRIX 159081 45106 491686 86894 338706 20368	023	15789199	UDE MATRI) 36417389 78362393 50329995	**23837399 *60083652 *76300263
Y= +000 Z= +>000	GIMBAL ANGLE AIG= -78.09 AMG= 22.77 A8G= 98.37	SDS COU -78.09 -22.77 98.37	AGC CDU +77*76 - 22*68						
STATE VECT . SDS CM AGC CM DELTA	-2858883*7 -2860788*0 . 1904*3	5215938 • 9 5215580 • 0 358 • 9		RSS 6645070*1 6646644*3 =1574*2	-7050•76 -7017•21 -33•56	-2908 • 72 -2894 • 97 -13 • 74	VZ 1627·64 1620·47 7·17	RSS 7798*92 7761*96 36*96	2913.94
SDS LM AGC LM DELTA	*3358157*5 *3358157*9 *4	4993720°0 4993671°2 48°8		6653032 • 2 6653006 • 9 25 • 4	-6680.56 -6680.56	-3396+30 -3396+31 -02	1941 • 49 1941 • 56 - • 07	7741.73 7741.74 01	2986:41
POSITION SDS CM SDS LM	LAT +25.38 +25.39	10NG 72.47 72.42	ALT 272871 • 0 278769 • 8	APOGEE 458169:4 282186:2	PERIGEE 262538.6 272282.7	AZIMUTH ~•11	ELEVATION 3.27	RANGE - 560776*3	RANGE RATE -65.99
FLAGWD 0 0020 FL'AGWD 8 5000 RCSFLAGS 0001 FAILRG+1 0000 HBLDFLAG 0000 CHAN 13 0010	FLAGWD 9 1 RCSFLAGS 0 FAILRG+2 0 DAPDATR1	40000 00011 RSBBQ 00000 PIPA X 11113 DAPDATR	42106 RSB8G+ 77777 PIPA Y 2 11111 REDOCT	1 03434 77777 R 00001	FLAGWD 4 10000 CADRFLSH 56016- PIPAZ 77716 IMBDE 30 36000 CHAN 32 77777	CADR+1 73174 FLAG 10 00000 IMODE 33 26000	•	60 FAILRE	
ADET/BBP -12 THETAD X 97* RTARG X 90* PCMD - 00* ADBT/BBY -58 THETAD Y -76 ERRORX -46 WBBD/BCY -44 VGTIG Y -44 Z CG -44 WY DEG/S -12	99.060 14258 000000 001045 087240 372.52 373676	THETAD Y -76.8 RTARG Y 2176 DELV Y 2000 YCMD .000 AK439 THETAD Z 21.6 PCMD .000 ERRORY 1.65 THETAD X 102.8 VGTIG Z .844 JET FUEL 45.4 IXY WZ DEG/S .524 XGYRGOUT .000	5700E-01 AK 6035 THET 504* RTAK 0000 DELV 0000 CSTE 4531 AK1 7178 ELEV 0000 YCM 8936 ERRE 3047 THET 2346 SLOS **933 IXZ 5586E-01 CGNF 0000 YGM**	-+17 GR Z -1036 GR Z -1235 / Z -3*10 -1.59 / -41*0 -000 RZ -802 RAD Y -55*3 MASS 1749 221* 1:00 RRBBUT -000	#805 AK1 7178 T1G 646- TG9 0500 PACT 0000 AD9T 3018 AK2 7942 CENT 0000 LEMM 0020 WB6D 0518 THET -757 X CG 9920 IXX 3135 IYZ 0000 AXSC	2831743E:7910156 ANG 61.50000 ASS .0000000 /OCR .0000000 AD Z 44.27490	THETAD X DELIAR CSMMASS WB0D/0CP VGTIG X Y CG IYY WX DEG/S	1:115075 :1269221 97:61353 117620:0 25940:00 :0000000 -14:24055 :3076639 9027:18 :2098235 -:1142607	E-01 E-02

PROGRAM 40 VERS 16	NOUN 40 R1	+00 02 R2 +00588 R3 +04	880 FLASH 1 DSPT/	AB +11 00000
SDS REFERENCE * .79159081 -0004209549491686 -9110828635838706	4510611341 86894023 -00	AGC REFERENCE MATRIX 1222304 • 79159081 = 45106 0042095 • 49491686 • 86894 1108285 • • 35838706 • 20368	113 = .89779520 023 • 15908027	TITUDE MATRIX368207932416346178273416 -60168171 -50174689 -76130915
REFSMMATER GIMBAL ANGLE Y= *000 AIG= *76*23 Z# -*000 AMG# 23*07 X= *000 AMG# 98*46	*78*23			
STATE VECT RX SDS CM -2872975.9 AGC CM -2874812.0 DELTA 1836.1	RY 5210108*1 -2959458*9 5209778*0 -2961798*0 330*1 2339*1	RSS VX 6645119*6	-2922.67 1635.86 -2908.02 1627.91 -14.65 7.95	RSS TIME 7798•71 2915•94 7758•80 39•91
SDS LM +3371509.5 AGC LM +3371509.9 DELTA +4	4986865 0 +2833101 0 3	6653022*1	-3409.81 1949.19 -3409.83 1949.26 -0207	7741•74 2988•41 7741•76 ~•01
PRSITION LAT. SDS CM #25.35 SDS LM #25.35		AP8GEE PERIGEE. 458208*0 262525*6 282210*2 272278*6	AZIMUTH ELEVATION 7:11 3:27	RANGE RANGE RATE 560646:2 -65:68
FLAGWD 0 00200 FLAGWD 1 FLAGWD 8 50000 FLAGWD 9 RCSFLAGS 00011 RCSFLAGS FAILRG+1 00000 FAILRG+2 HBLDFLAG 00000 DAPDATR1 CHÂN 13 40100 CHAN 14	40000 00011 RSBBQ 42106 RSB 00000 PIPA X 00001 PIP 11113 DAPDATR2 11111 RED	PA Y 77777 PIPAZ 77721 DBCTR 00001 [MBDE 30 36000	FLAGWD 5 40202 FLAGWD 6 CADR+1 73174 CADR+2 FLAG 10 00000 FLAG 11 IMBDE 33 26000 CHAN 11 CHAN 33 67765	30000 FLAGWD 7 14140 50160 FAILREG 00000 00000 0PTMBDES 00120 01440 CHAN 12 00040
CDUX 98.44849 AD01/08P 1323268 THETAD X 97.61353 RTARG X -6163634 DELV X 0000000 PCMD 0000000 AD01/08P 5520306E-01 THETAD Y -76.86035 TEVENT 2899.060 ERR0RX 4943848 WB0D/08CY 0000000 VGTIG Y 50.28343 Z CG 4937240	ADBİ/8BY .5815700E-01 A THETAD Y -76.86035 T TRARGY 2176504* R DELV Y .0000000 D YCMD .0000000 C AK4833984 A THETAD Z .21.07178 E PCMD .0000000 Y PCMD .0000000 Y PCMD .0000000 T RRBGRY 1.955566 E THETAD X 102.3047 T VGTIG Z 3.428364 S ET FUEL 45.42383 S	CSTEER + 0000000 AD8T. AK1 -1.878662 AK2 ELEV -41.07942 CENTA YCMD + 0000000 LEMM, ERRBRZ + 9338379 WB6D, THETAD Y +55-30518 THETA SYCMASS 1749.757 X CG SLBSH AR -7-309920 IXX	-9118652 THET. NG 61.50000 DELT. NS 0000000 CSMM 000000 WBB0 ND Z 44.27490 VGTI 8.502293 Y CG 30473.22 IYY	8349609 T4 139-650 IME1 2917-940 BFF 1:115075 708P 1372084 AD X 97.61353 AR 117620.0 ASS 25940.00 70CP .0000000 G -16.85209 .3076639 79027-18
1ZZ 84372.52 WY DEG/S .1573676 AZSCM/S2 .1492385E=02 AYSMM/S2 .1540604E=02	WZ DEG/S *4546174E=01 C XGYR00UT *0C00000 Y	IXZ 221.3135 IYZ C0NFIG 1.000000 AXSCN YGYR0BUT 0000000 ZGYR0 ARSMM/S2 2328056F=02		M/S21515703E-02

PROGRAM_ 40 _ VERB 16	N8UN 40 -	R1-+00 02 R2	+00676 - R3 +04	968 FLASH 1	DSPTA	B +11 00000 -	
**************************************	45106113 86894023	• 41222304 • 79 • 00042095 • • 49	NCE MATRIX 159081 45106 491686 86894 838706 20368	023	S/C AT 89514875 16030669 41594577	TITUDE MATRI 37234306 78192353 -49995542	X ~024509144 60240936 475962639
REFSMMAT ER GIMBAL ANGLI Y= *000 AIG= -78*38 Z= **000 AMG= 23*38 X= *000 ABG= 98*55	-78+38 -78 23+38 23				· .		•.
STATE VECT RX SDS CM ~2887053.2 AGC CM -2888814.0 DELTA 1760.8	5203948 • 0 -295853		-7 ₀₃₄ ,76 -6996,16 -38,60	-2936-55 -2921-13 -15-42	1643.83 1635.39 8.44	RSS 7798+29 7755+88 42+41	29 ₁ 7 • 94
SDS LM +3384843.3 AGC LM -3384843.7 DELTA .4	4980031.9 -282919		-6662 · 32 -6662 · 31	-3423.30 -3423.32 -02	1956.87 1956.94 07	7741 • 76 7741 • 78 -•01	2990•41
P8SITI6N LAT SDS CM -25.31 SDS LM -25.31		4.4 458246.4	PERIGEE 262513.0 272274.5	AZIMUTH12	ELEVATION 3.26	RANGE 560515•8	RANGE RATE -65.16
FLAGWD 0 00200 FLAGWD 1 FLAGWD 8 50000 FLAGWD 9 RCSFLAGS 00011 RCSFLAGS FAILRG+1 00000 FAILRG4-2 H0LDFLAG 00000 DAPDATR1 CHAN 13. 40100 CHAN 14	40000 00011 RSBBQ 42106 00000 PIPA X 77777	RSBBQ+1 03434 PIPA Y 77776 REDOCTR 00001	CADRFLSH 56016 PIPAZ 77720 IMBDE 30 36000	FLAGWO 5 40202 CADR+1 73174 FLAG 10 00000 IMBDE 33 26000 CHAN 33 67765	CADR+2 FLAG 11 CHAN 11	50160 FAILRE	7 14140 G 00000 ES 00120 2 00040
CDUX 98.53638 ADBT/BBP 1401722 THETAD X 97.61353 RTARG X -6163634. DELY X 5850001E=01 PCM0 000000 ADBT/BBY -6059781E-01 THETAD Y -76-86035 TEVENT 2899.060 ERRBRX 5163574 WBED/BCY 0000000 VGIIG Y -6.039047 Z CG 4987240 IZZ WY DEG/S 1678587 AZSCM/S2 4593746E-02 AYSMM/S2 -3971415E-C2	CDUY -77.95898 ADBIJOBY -6024912E-01 THEIAD / 776.86031 AC -5273437 THETAD / 21.07178 PCMD -0000000 ERRBRY 2.274170 THETAD / 22.74170 THETAD / 22.74170 THETAD / 20.02857 JET FUEL 45.42346 IXY 20.37.933 WZ DEG/S .3846763E-01 ACSMM/SZ -1217223E-02	AK50i THETAD Z 21: RTARG Z -12: DELV Z -2:6: CSTEER -000 AK1 -2:1: ELEV +41: YCMD -000 ERRBRZ 1:0! THETAD Y -55: S/C MASS 174' SLØSH AR -7:3! IXZ 221 CONNIG 1:0! YGYRBRUT 1:0!	77178 TIG 7646* TG9 710000 AD8T, 77266 AK2 77942 CENT, 70000 LEMM, 74687 WB9D, 75757 X CG		THETA DELTA CSMMA WB6D/ WGTIC Y CG IYY WX DE AYSC	9667968 139-566 139-566 139-566 139-566 139-566 139-566 139-566 139-566 1366 1366 1366 1366 1366 1366 1366 1	E=01 E=02

PROGRAM 40	VERB 16	NOUN 40	R1 +	00 02 R2	+00766 R3-+0	5058 -FLASH 1	- DSPTAR	8 +11 00000	
SDS	REFERENCE M	ATRIV		ACC DECEDE	ENCE MATRIX		G (C AT	TITUDE MATRI	,
- • 41222364	•79159081	**45106113	415		3159081 -4510	6113 -	,89235401		~ * 24874067
•00042095	49491686	86894023			9491686 8689		• 16158414	֥78116798	•60304832
= • 91108286	35838706	*20368291			5838706 *2036		*42142010	•49793959	«75793171
21100500	- + 236367 Up	*COnners!		.00200 -*0.	2030/00 *2030	0251	*76146010	44373333	410103111
REFSMMAT ER	GIMBAL ANGLE	SDS CDU	AGC CDU						
Y= +000	AIG= =78:54	=78.54	-78 - 19						
Z= ~,000	AMG= 23.71	23.71	23+59					•	
X= +000	ABG= 98.63	98 • 63	98 • 67						
X- +000	W00- 20-00	20.00	20.01						
STATE VECT	RX	Ry	RZ	RSS	VX	. VY -	٧Z	RSS	TIME
SDS CM	-2901115.2	5198361*9	-2952883.4	6645220 * 6	-7027.26	-2950+81	1651 * 81	7798 • 60	2919.94
AGC CM	-2902796 * 0	5198092 • 0	-2955256 a C	6646798 • 0	-6985.87	-2934+23	1642.87	7753 • 14	
DELTA -	1680 • 8	269.9.	2372.6	-1577 . 4	-41 - 39	~16*57	8 • 95	45.46	
	-								
SDS LM	~3398158 _* 8	4973220.7	-2825248 . 0	6653001 +8	-6653 • 14	-3436 • 78	1964.55	7741.78	2992 • 41
AGC LM	-3398159 - 1	4973171.7	-2825273.5	6652976 • 3	-6653 * 12	-3436.79	1964 • 62	7741.79	
DELTA	• 3	48.9	25 • 4	25 • 6	- * 01	• 02	- + 07	- * 01	
						4 - 7 Milwid		Dation	D.111 D.1 W.W.
POSITION	LAT	LONG	ALT	APOGEE	PERIGEE	AZIMUTH	ELEVATION	RANGE	RANGE RATE
SDS CM	-25.27	72 * 87	273041 . 8	458285 • 7	262500 • 6	- + 12	3 * 26	560385+3	-65-36
SDS LM	*25 · 28	72 * 82.	278707.3	282258 • 3	272270 • 3				
FLAGWD 0 00	200 FLAGWD 1	00001 FLAGWD	2 00334 FLAG	SWD 3 10004	FLAGWD 4 10000	FLAGWD 5 40202	FLAGWD 6	30000 FLAGWD	7 14140
FLAGWD 8 50		40000							
RCSFLAGS CO			42106 RSB8	30+1 03434	CADRFLSH 56016	CADR+1 73174			G 00000
FAILRG+1 00	000 FAILRG+2	00000 PIPA X	77777 - PIP		PIPAZ 77730	FLAG 10 00000			ES 00120
HOLDFLAG 00	000 DAPDATR1			OCTR 00001	IMBDE 30 36000	IMBDE 33 56000		01440 CHAN 1	2 00040
CHAN 13 00	100 CHAN 14	00000 CHAN 30	37373 CHA	y 31 377.77	CHAN 32 77777	CHAN 33 . 67765			
					10001			0101010	
	8 • 63525	CDUY -78 • 1			43384 CDU 73437 AK1		AD01/	*2134368 -1.087646	
	1478434					2899.060	DELLT		
	7 • 61353	THETAD Y -76 . 8		HETAD Z 21. TARG Z =123	0/1/8 IIG	2.730000	PIPTI		
	163634.	RTARG Y 2176				TOFF =1 :233700	YACTO		
	0000000				00000 AD8				
	0000000 6286428E=01	AK538			15869 AK2	-1.153564	THETA		
THETAD Y =7		THETAD Z 21.0				TANG 61-50000	DELTA		
	899 - 060					MASS +0000000	CSMMA		
	5383301					D/8CR +0000000	WB6D/		
MBBD/BCY .		THETAD X 102:		HETAD Y -55.		TAD Z 44-27490		X =21 • 78469	
	0000000				9.757 X C		Y CG	.3076639	
	4987240			185H AR =7.3			IYY	79027 * 18	
	4372.52				•3135 IYZ			G/S •1049118	
	1818470					CM/S2 +88610338		1/82 1608977	
	4500472E-02					R88UT .0000000		1/52 •2717858	
AYSMM/S2					81136E=02		***************************************		
ATOLINY DE. WE	00000-1000	7401111111	media (L. T. O.L. A	TOTAL STO					

PROGRAM 40 VERB	16 NOUN 40 -	R1 +00 02 R2 +0	0840 R3 +051xx F	ASH 1 - DSPTA	B +11 00000 -	
**************************************	81 45106113 86 86894023	AGC REFERENC ~•41222304 •7915 •00042095 ••4949 •91108285 ••3583	1686 86894023	S/C AT 88940048 -16294098 42710328	78047109	•25257635 •60358524 •75623369
REFSMMAT ER GIMBAL AN Y= *000 AIG= *78* Z* **000 AMG= 24* X= *000 AGG= 98*	70 = 78+70 = 78 06 = 24+06 = 23					
STATE VECT RX SDS CM +2915161 AGC CM +2916758 DELTA 1596	*0 5192210 · 0 -295196	2.0 6646849.0	VX -7019*15 -2965* -6975*47 -2947* -43*68 -17*	32 1650+40	7798 • 42 7750 • 33 48 • 09	7 IME 2921 * 94
SDS LM +3411455 AGC LM +3411456 DELTA	·2 4966284 · 7 - 282133		-6643.91 -3450. -6643.91 -01		7741.80 7741.81 01	2994•41
POSITION LA SDS CM -25: SDS LM -25:	24 73.01 27309	9.6 458325.6	PERIGEE AZIMU 262488•4 -• 272266•1		RANGE R 560255+3	ANGE RATE
FLAGWD 8 50000 FLAGWD RCSFLAGS 00001 RCSFLA FAILRG+1 00000 FAILRG	1 00001 FLAGWD 2 00334 9 40000 GS 00001 RSBBQ 42106 +2 00000 PIPA X 77777 R1 11113 DAPDATR2 11111 4 00000 CHAN 30 37373	RSBBQ+1 03434 CA PIPA Y 77777 PI REDOCTR 00001 IM	AGWD 4 10000 FLAGWD 5 DRFLSH 56016 CADR+1 PAZ 77734 FLAG 10 8DE 30 36000 IM8DE 33 AN 32 77777 CHAN 33	73174 CADR+2 00000 FLAG 11 26000 CHAN 11	30000 FLAGWD 7 50160 FAILREG 00000 0PTM0DES 01440 CHAN 12	00000
CDUX 98.71216 AD817.8BP .1555145 THETAD X 97.61353 RTARG X -6163634. DELV. X .0000000 AD817.8BY .6338731E-01 THETAD Y 76.86035 TEVENT 2899.060 ERR8RX .5383301 WBBD/8CY .0000000 VGT1G Y .7.87096C Z CG .4987240 IZZ 84372-52 WY DFG/S .1783499 AZSCM/S2 .5650092E-02 AYSMW/S2 .5650092E-02	THETAD Z 21.07178 PCMD .0000000 ERRERY 2.966309 THETAD X 102.8047 VGTIG Z 4.976654 JET FUL 45.42334 IXY 2037.933 WZ DEG/S .5595292E-01	THETAD Z 21.071 RTARG Z -123564 DELV Z -2.2818 CSTEER .00000 AK1 -2.8724 ELEV +1.075 YCMD .00000 ERRORZ 1.3073 THETAD Y -55.305 S/C MASS 1749-7. SLOSH AR -7.3099 1XZ 221.31 CONFIG 1.00000 YGYROBUT .000000	64 AK1 -2.6 78 TIG 289 66 TG9 2.7 600 PACTBFF -1.2 000 AD8T/ .14 418 AK2 -1.2 424 CENTANG 61.0 100 LEMMASS .00 173 W88D/8CR .00 174 THETAD 2 44.9 175 X CG 8.5 170 IXX 304 171 172 160 172 000 AXSCM/S293	02293 Y CG 73.22 IYY 4.225 WX DE	1.197510 T4 1139.650 IME1 2923.940 BFF. 1.1150.75 /88P 1607448 AD X 97.61353 AR 117620.0 ASS 25940.00 /8CP 0000000 G X -23.86332 .3076639 79027.18 EG/S 6994114E- M/S2 -1235881E	•02

_PR0GRAM 40	VERB 16	NOUN 40	R1 +00	0 02 62	+00907 R3 +0	5200 FLASH 1	DSPTAB +1	1 00000
SDS 41222304 -00042095 91108286	REFERENCE -79159081 49491686 35838706	ATRIX 45106113 86894023 +20368291	• 00042 • 00042 • 91108	23 ₀ 4 .79 2095 - 49	RNCF MATRIX 31590814510 4916868689 8838706 -2036	4023	·16440082 - · 7	DE MATRIX 856058125664544 - 7984643 -60399652 9309897 -75453353
REFSMMAT FR Y= *000 Z= -*000 X= *000	GIMBAL ANGLE AIG= -78.86 AMG= 24.42 ABG= 98.77	SDS CDU +78+86 24+42 98+77	AGC CDU -78.50 24.30 98.82					
STATE VECT SDS CM AGC CM DELTA	*2929191 • 2 *2930698 • 0 1506 • 8		RZ -2946244•1 -2948654•0 .2409•9	RSS 6645323 • 5 6646900 • 0 =1576 • 5	-7011 • 68 -6965 • 45 -46 • 23	vY =2978∙57 •2960•59 •17∙98		RSS TIME 7798 • 68 2923 • 94 7748 • 00 50 • 68
SDS LM AGC LM DELTA	=3424734 • 4 =3424734 • 7 • 3		-2817359 · 2 -2817384 · 3 -25 · 2	6652981 • 5 6652955 • 8 25 • 7	-6634.65 -6634.65	=3463+67 =3463+69 +02		7741.81 2996.41 7741.83 01
POSITION SDS CM SDS LM	*25 * 20 *25 * 20	L6NG 73•14 73•09	ALT 273157:9 278665:4	AP8GEE 458365+9 282306+7	PERIGEE 262475•8 272261•9	AZIMUTH	ELEVATION 3.25 5	RANGE RANGE RATE 60126•0 +65•23
FLAGWD 0 002 FLAGWD 8 500 RCSFLAGS 000 FAILRG+1 000 HBLDFLAG 000 CHAN 13 000	000 FLAGWD 9 001 RCSFLAGS 000 FAILRG+2 000 DAPDATR1	40000 00001 RSBBQ 00000 PIPA X	42106 RSBBQ 77777 PIPA 11111 REDBC	1+1 03434 Y 77777 TR 00001	CADRFLSH 56016 PIPAZ 77740 IMBDE 30 36000 CHAN 32 77777	CADR+1 73174 FLAG 10 00000 IMBDE 33 26000 CHAN 33 67765	CADR+2 5016 FLAG 11 0000 CHAN 11 0144	O FAILREG 00000 00 0PTM0DES 00120
ADDT#BBP : THETAD X =6: DELV X = 0: DELV X = 0: ADDT#BPY =7: TEVENT =7: TEVENT =8: WBBD#BCY =8: Z CG =8: ZZ WY DEG/S **	399.060 5383301 0000000 .6604717 4987240 4372.52 1958352 6004516E-02	XGYROBUT .COOK	731E-01 AK 004* RTA 0000 DEL 0000 CST 1164 AK1 1778 ELE 10000 S/C 13600 S/C 13600 S/C 13600 S/C 13600 S/C 13763E-01 C8N		07178 TIG 5646. TG8 47500 PACT 00000 A081 40967 AK2 07942 CENT 00000 LEMM 17236 W8ed 30518 THET 99757 X CG 09920 IXX 13135 IYZ 00000 AXSE	-3.065186 2899.060 2.730000 0FF -1.233700 / 1070872E -1.406250 ANG 61.50000 ANS .0000000 /OCR .0000000 AD Z 44.27490	THETAD X DELTAR CSMMASS WB0D/0CP VGTIG X Y CG IYY WX DEG/S	*1262650E-01 -1.329346 1139.650 2925.940 1.115075 -1699850 97.61353 117620.0 25940.00 -0000000 -25.72870 .3076639 79027.18 -3497057E-02 -1422429E-02 -2561617E-02

PROGRAM 40	VERB 16	_ NOUN 40 -	R1 +0	0 05 85	+00967 R3 +0	5260 FLASH 1	DSPTA	B +11 00000	
SDS 41222304 -00042095 91108286	.79159081 49491686	*ATRIX 45106113 86894023 .20368291	- 4122 • 0004 - • 9110	2304 • 791	CE MATRIX 159081 + 4510 +91686 - 8689 338706 + 2036	4023	S/C AT *88299060 *16586280 *43910933	TITUDE MATRI 39023042 77928185 -49034548	**26085997 *60432482 *75282335
REFSMMAT ER	GIMBAL ANGLE	SDS CDU	AGC CDU						
Y= •000		÷79÷03	*78 • 66						
Z= ==000	AMG= 24.80	24.80	24+65						
X= +000	A0G= 98:83	98.83	98 • 88						
STATE VECT SDS CM AGC CM DELTA	-2943205•3 -2944620•0 1414•7	RY 5180531 • 1 5180368 • 0 163 • 1	RZ -2942899.9 -2945330.0 2430.1	RSS 6645375 • 8 6646951 • 8 • 1576 • 0	-7003 • 46 -6955 • 61 -47 • 85	-2993-20 -2973-93 -19-27	VZ 1675.54 1665.58 9.96	7798 • 40 7745 • 90 52 • 51	TIME 2925•94
SDS LM AGC LM DELTA	-3437994.5 -3437994.7	4952479 • 0 4952430 • 0 49 • 0	-2813391 · 8 -2813416 · 8 25 · 0	6652971 • 3 6652945 • 6 25 • 8	-6625:37 -6625:36	~3477 • 09 •3477 • 11 • 02	1987.52 1987.59	7741 · 83 7741 · 85	2998•41
POSITION SDS CM SDS LM	LAT +25 • 16	L0NG 73•28 73•22	ALT. 273216.6 278644.4	AP8GEL 458406 * 0 282331 • 1	PERIGEE 262463•6 272257•7	AZIMUTH.	ELEVATION 3.24	-RANGE 559996+8	RANGE RATE -64.85
FLAGWD 0 00 FLAGWD 8 50 RCSFLAGS 00 FAILRG+1 00 H8LDFLAG 00 CHAN 13 00	000 FLAGWD 9 001 RCSFLAGS 000 FAILRG+2	40000 00001 RSBEQ 00000 PIPA X 11113 DAPDATR	42106 RSBBG 77777 PIPA 2 11111 REDBC	1+1 03434 (Y 77777 I TR 00001	IMBDE 30 36000	FLAGWD 5 40202 CADR+1 73174 FLAG 10 00000 IMBDE 33 26000 CHAN 33 67765	CADR+2 FLAG 11 CHAN 11		
ADBT/BBP THETAD X PRTARG X -6 DELV X PCMD ADBT/BBY THETAD Y TEVENT ERRBRX WBBD/8CY VGTIG Y -5 Z CG IZZ WY DEG/S AZSCM/S2	8.84399 1738206 1736353 163634. 0000000 0000000 67571565-01 6.86035 8899.060 5163574 0000000 .254646 4987240 44372.52 2028293 45004725-02	AK527 THETAD Z 21.0 PCMD .000 ERRORY 3.70 THETAD X 102.0 VGTIG Z 5.76 JET FUEL 45.4 IXY 2037 WZ DEG/S 384 XGYRGRUT .000	2812E-01 AK 6035 THE 6035 THE 0000 DEL 0000 CST 3437 Aki 7178 ELE 0000 YCP 2393 ERR 3047 THE 2959 S/C 2334 SL 6763E-01 CB	- 527 TAD Z 21:0 RRG Z -1235 V. Z -1:81 EER -3:60 V -41:0 00 -000 RBRZ 1:55:3 TAD Y -55:3 TAD Y -55:3 MASS 1749 95H AR -7:30 221:4 FIG 1:000	3437 AK1 77178 TIG 6446. TGB 6446. TGB 3500 PACT 0000 ADBT 3316 AK2 7942 CENT 0009 WBBD 0518 THET .757 X CG 9920 IXX 3135 IYZ 0000 AXSC	-3.416748 2899.660 2.730000 6FF -1.233700 / *4781038E -1.527100 ANG 61.50000 ANS *0000000 /OCR *0000000 AD Z 44+27490	THETA DELTA CSMMA WB6D/ VGT16 Y CG IYY WX DE	-1.472164 1139.650 ME1 2927.994 FF 1:115077 BBP -175738: D X 97.61353 R 117620.6 SS 25940.00 000 X -27.38094 .307663 .79027.11 G/S -3497025 /SZ -1515703	3 0 0 5 3 3 3 0 0 0 0 0 0 0 0 0 0 0 0 0

PROGRAM 40 VERB 16	NOUN 40	R1 +00 02 R2 +01017	R3 +05310 FLASH 1	DSPTAB +	11 00000	
SDS REFERENCE ** 79159081 ***00042095**49491686 ****91108286**35838706	45106113 86894023	AGC REFFRENCE MATI -*4122304 *79159081 *00042095 -*49491686 -*91108285 -*35838706	45106113 86894023	•87956047 •16733527	77871013 +60	526308 9465550 101686
REFSMMAT ER GIMBAL ANGLE Y= *000 AIG= -79*20 Z= **000 AMG= 25*19 X= *000 AGG= 98*90	-79.20 - 78. 25.19 - 25.	*84	; ; *			
STATE VECT RX SDS CM -2957203.9 AGC CM -2958522.0 DELTA 1318:1	RY	0 • 0 6645428 • 6 = 69 2 • 0 6647002 • 8 = 69	VX - VY 94.50 =3006.93 45.94 =2987.34 48.55 =19.60	VZ 1684·17 1673·22 10·95	RSS 7797.51 2 7744.03 -53.48	TIME 2927•94
SDS LM +3451235.9 AGC LM -3451236.1 DELTA .2	4945511.4 -2809405 4945462.3 -2809434 49.1		16.05 -3490.49 16.03 -3490.51 01 .02	1995+16 1995+23 -+07	7741 • 85 3 7741 • 86• 01	3000+41
POSITION LAT SDS CM =25.12 SDS LM +25.12	73.41 27327 73.35 27862	5.7 458447.5 2624	51 • 5	ELEVATION 3.23		E RATE -63.86
FLAGWD 0 00200 FLAGWD 1 FLAGWD 8 50000 RCSFLAGS 00001 FAILRG+1 00000 FAILRG+2 HBLDFLAG 00000 DAPDATR1 CHAN 13 00100 CHAN 14	40000 00001 RSBBQ 42106 00000 PIPA X 77777 11113 DAPDATR2 11111	FLAGWD 3 10004 FLAGWD 4 RSBB0+1 03434 CADRFLSH PIPA Y 77777 PIPAZ REDBCTR 00001 IMBDE 30 CHAN 31 37777 CHAN 32	56016 CADR+1 73174 77752 FLAG 10 00000 36000 IMODE 33 26000	CADR+2 501 FLAG 11 000 CHAN 11 014	60 FAILREG 00	0000
CDUX 98.90991 AD8T/8BP 1785278 THETAD X 97.61353 RTARG X -6163634. DELV X .0000000 AD8T/8BY .6983802E-01 THETAD Y 76.86035 TEVENT 2899.060 ERRRX .65053711 WB8D/8CY .0000000 VGTIG Y -9.799671 Z CG .4987240 IZZ 84372.52 WY DEG/S .2063264 AZSCM/S2 1492385E-02	CDUY -78.73901 AD81/88Y	YGYR88UT +0000000	CDUT -19.76715 AK1 -3.790283 T1G 2899.060 T08 2.730000 PACT0FF -1.233700. AD0T/ -4.22480E AK2 -1.669922 CENTANG 61.50000 WB4D/GCR 0000000 WB4D/GCR 0000000 THETAD Z 44.27490 X CG 8.502293 IXX 30473-22 IYZ 1604.225 AXSCM/S2 -93274038 ZGYR880UT 00000000	THETAD X DELTAR CSMMASS WB0D/0CP VGTIG X Y CG IYY WX DEG/S 4YSCM/S2	1*115075 2 *1820147 9 7*61353 117620*0 25940*00	
AYSMM/S21536971E-02	AZSMM/S2 -,6322289E-03	ARSMM/S2 .2328861E-02				

SDS REFERENCE MATRIX *AGC REFERENCE MATRIX **17157961 **18106113 **18128304 **79159081 **85106113 **85756.83 **195928185 **265998847 **91106285 **9391686 **8639023 **0042055 **49491686 **8639023 **18879272 **77819950 **004205 **49491686 **8639023 **18879272 **77819950 **004205 **49491686 **8639023 **18879272 **77819950 **004205 **49491686 **8639023 **18879272 **77819950 **004205 **49491686 **8639023 **18879272 **77819950 **004205 **49491686 **8639023 **18879272 **77819950 **004205 **49491686 **8639023 **18879272 **77819950 **004205 **49491686 **8639023 **49106285 **49491686 **8639023 **49106285 **49491686 **8639023 **49106285 **49491686 **8639023 **49106285 **49		PROGRAM 40	- VERB 16	NAUN 40	-R1	+00-05 HS	+01057 R3 +0	5350 FLASH 1	DSPTAR	3 +11 00000	
#1222304 ***7915981 *\$106113 ****\$122304 ***7915981 ****\$106113 ***3795081 ***26990847 *** *********************************		00.0			114						
**************************************							ENCE MATRIX	6112			
## ## ## ## ## ## ## ## ## ## ## ## ##											
REFSMANT ER GIFNAL ANGLE SDS CDU AGC CDU Y= .000 AIGs -79.37											
Y= .000 AIG=.79.37		**91100288	**35638/05	* 50368531	407	11002003:	3030/00 «2030	.0521	443199993	140431403	47.42.1337.0
Z= -000 ANG= 25.60											
STATE VECT RX 15.68502.8 -2936168.4 664581.6 -6987.43 -3021.58 1691.25 7798.36 2929.94 SOS CM +2971.85.7 5168502.8 -2936168.4 664581.6 -6987.43 -3021.58 1691.25 7798.36 2929.94 ACC CM +2972.04.0 5168418.0 -2938638.0 6647053.7 -6936.51 -3000.83 1680.92 7742.46 DELTA 1218.3 84.8 2473.6 +1572.1 -50.92 *20.75 10.93 55.90 SDS LM -3464458.6 4938517.0 *2805411.2 665295.9 -6606.66 *3503.87 2002.78 7741.87 3002.41 ACC LM -33464458.9 4938517.0 *2805431.2 665295.0 -6606.67 *3503.89 2002.85 7741.88 DELTA **2**********************************											
STATE VECT RX RY. RY. RZ RZ RSS VY ST. RSS TIME SDS CM -2971185.7 51685c.8 -2936164.4 6.4648.1 -6987.4 -3021.58 1691.25 7798.36 2929.94 AGC CM -2972404.0 516818.0 -2938638.0 6647053.7 -6936.51 -3000.83 1680.92 7772.46 DELTA 1218.3 184.8 2473.6 -1572.1 -50.92 -20.75 10.33 55.90 SDS LM -246458.6 4938517.0 -2805411.2 665295.0 -6606.68 -3503.87 2002.78 7741.87 3002.41 AGC LM -346458.6 4938517.0 -2805411.2 665295.0 -6606.66 -3503.89 2002.85 7741.87 3002.41 AGC LM -346458.9 4938.67.0 -2805411.2 665295.0 -6606.67 -3503.89 2002.85 7741.88 DELTA 24.7 25.9 -01 -35.08 774.58 2 49.1 24.7 25.9 -01 -35.08 774.58 2 49.1 24.7 25.9 -01 -35.08 774.58 2 49.1 24.7 25.9 -01 -35.08 774.58 2 49.1 24.7 25.9 -01 -35.08 2 -0.7 -01 -01 -02 -0.7 -01 -01 -02 -0.7 -01 -01 -02 -0.7 -01 -02 -0.7 -01 -01 -02 -0.7 -0.1 -02 -0.7 -0.1 -02 -0.7 -0.1 -02 -0.7 -0.1 -02 -0.7 -0.1 -02 -0.7 -0.1 -02 -0.7 -0.1 -0.2 -0.7 -0.1 -0.2 -0.7 -0.1 -0.2 -0.2 -0.7 -0.1 -0.2 -0.2 -0.7 -0.1 -0.2 -0.2 -0.7 -0.1 -0.2 -0.2 -0.7 -0.1 -0.2 -0.2 -0.7 -0.1 -0.2 -0.2 -0.7 -0.1 -0.2 -0.2 -0.7 -0.1 -0.2 -0.2 -0.7 -0.1 -0.2 -0.2 -0.7 -0.1 -0.2 -0.2 -0.2 -0.2 -0.2 -0.7 -0.1 -0.2 -0.2 -0.2 -0.2 -0.2 -0.2 -0.2 -0.2						and the state of t		* * * * * * * * * * * * * * * * * * *			
SDS CM +2971185-7 51685g2-8 -2936164+4 6645821-6 -6987-43 -3020-83 1680-92 7742-86 2929-54 AGC CM +2972404-0 5168418-0 -29386383 6647053-7 -6936-51 -3000-83 1680-92 7742-86 DELTA 1218-3 84-8 2473-6 +1572-1 -6936-51 -3000-83 1680-92 7742-86 DELTA 1218-3 84-8 2473-6 +1572-1 -6936-51 -3000-83 1680-92 7742-86 DELTA 1218-3 84-8 2473-6 +1572-1 -50-92 -20-75 10-33 755-90 DELTA 2938-673-9 -28054517-0 -2805411-2 6652950-9 -6606-66 -3503-87 2002-85 7741-87 3002-41 DELTA 299-1 -00-6652950-9 -6606-67 -3503-89 2002-85 7741-88 DELTA 299-1 -00-6707 -001 -02 -07 -01 -02 -07 -01 -01 -02 -07 -01 -02 -07 -01 -02 -07 -01 -02 -07 -01 -02 -07 -01 -02 -07 -02 -02 -02 -02 -02 -02 -02 -02 -02 -02		X= *000	AGG= 98.96	98 • 96	99 • 01						
AGC CM											
DELTA 1218.3								-3021.58	1691 - 25		2929.94
SDS LM					-2938638 + 0			~3000 * 83	1680.92		
AGC LM		DELTA	1218+3		2473 • 6	-1572*1	*50 * 92	≈20×75	10.33	55.90	
AGC LM		SDS LM	~3464458 * 6	4938517 n	*2805411 *2	6652950+9	=66n6+68	*35n3+87	2002.78	7741 • 87	3002.41
DELTA -2 49*1 24*7 25*9 -*01 *02 -*07 -*01		AGC LM	-3464458.9	4938467.9	-2805435.9	6652925 * 0	-6606+67	-3503 - 89		7741.88	-000
SDS CM		DELTA	•2	49 • 1	24.7			• 02		- * 01	
SDS CM		DASITION	LAT	LANC	ALT	ADRCEE	DERICEE	ATTMITH	CICVATION	PANCE	PANCE PATE
SDS LM											
FLAGWD 8 50000 FLAGKD 9 40000 RCSFLAGS 00001 RCSFLAGS 00000 RSBBQ 42106 RSBBG+1 03434 CADRFLSH 56016 CADR+1 73174 CADR+2 50160 FAILREG 00000 FAILREG-2 00000 PIPA X 77777 PIPA Y 77777 PIPAZ 77760 FLAG 10 00000 FLAG 11 00000 PTMBDES 00120 HBLDFLAG 00000 DAPDATR1 11113 DAPDATR2 11111 REDECTR 00001 IMBDE 30 36000 IMBDE 30 36000 CHAN 11 01440 CHAN 12 00040 CHAN 13 00100 CHAN 14 00000 CHAN 30 37373 CHAN 31 37777 CHAN 32 77777 CHAN 33 67765 CDUX 98.97683 CDUY -78.91479 CDUZ 25.23560 CDUT -19.76715 A08T/6236136E-03 ADBT/BBP 1868963 ADBT/BBY .7070974E-01 AK -4943848 AK1 -4.207764 AK2 -1.735840 THETAD X 97.61353 THETAD Y -76.86035 THETAD Z 21.07178 TIG 2899.060 DELLT4 1139.650 RTARG X -6163634* RTARG Y 2176504* RTARG Z 21.235646* TG 9 2.730000 PIPTIME1 2331.940 DELV X .0000000 DELV Y .0000000 DELV Z -1.228500 PACTBFF -1.233700 YACTBFF 1.115075. DELV X .0000000 DELV Y .0000000 DELV Z -1.228500 PACTBFF -1.233700 YACTBFF 1.115075. DELV X .7088408E-01 AK -4833984 AK1 -4.416504 AK2 -1.812744 THETAD X 97.61353 THETAD Y -76.86035 THETAD Z 21.07178 ELEV -41.07942 CENTANG 61.50000 CEMMAS 25940.00 ERRRRX -4724121 ERRGRY 4.504395 ERRBKZ 1.834717 WBBD/BCR .0000000 CEMMAS 25940.00 ERRRRX -4724121 ERRGRY 4.504395 ERRBKZ 1.834717 WBBD/BCR .0000000 CEMMAS 25940.00 ERRRRX -4724121 ERRGRY 4.504395 ERRBKZ 1.834717 WBBD/BCR .0000000 CEMMAS 25940.00 ERRRRX -4724121 ERRGRY 4.504395 ERRBKZ 1.834717 WBBD/BCR .0000000 CEMMAS 25940.00 ERRRRX -4724121 ERRGRY 4.504395 ERRBKZ 1.834717 WBBD/BCR .0000000 CEMMAS 25940.00 ERRRRX -4724121 ERRGRY 4.504395 ERRBKZ 1.834717 WBBD/BCR .0000000 CEMMAS 25940.00 ERRRRX -4724121 ERRGRY 4.504395 ERRBKZ 1.834717 WBBD/BCR .0000000 CEMMAS 25940.00 ERRRRX -4724121 ERRGRY 4.504395 ERRBKZ 1.834717 WBBD/BCR .0000000 CEMMAS 25940.00 ERRRRX -4724121 ERRGRY 4.504395 ERRBKZ 1.834717 WBBD/BCR .0000000 CEMMAS 2599114E-02 WY DEG/S -598670ZE-02 WZ DEG/S .5595292E-01 CBNFIG 1.0000000 AXSCM/S2 .0000000 AXSCM/S2 .0000000 AXSCM/S2 .0000000 AXSCM/S2 .1608977E-02 ERR RX -472402 JET TUEL 4.42229 SLBSH RP .7-300								- 10	0.45	0.007.00	0,100
FLAGWD 8 50000 FLAGKD 9 40000 RCSFLAGS 00001 RCSFLAGS 00000 RSBBQ 42106 RSBBG+1 03434 CADRFLSH 56016 CADR+1 73174 CADR+2 50160 FAILREG 00000 FAILREG-2 00000 PIPA X 77777 PIPA Y 77777 PIPAZ 77760 FLAG 10 00000 FLAG 11 00000 PTMBDES 00120 HBLDFLAG 00000 DAPDATR1 11113 DAPDATR2 11111 REDECTR 00001 IMBDE 30 36000 IMBDE 30 36000 CHAN 11 01440 CHAN 12 00040 CHAN 13 00100 CHAN 14 00000 CHAN 30 37373 CHAN 31 37777 CHAN 32 77777 CHAN 33 67765 CDUX 98.97683 CDUY -78.91479 CDUZ 25.23560 CDUT -19.76715 A08T/6236136E-03 ADBT/BBP 1868963 ADBT/BBY .7070974E-01 AK -4943848 AK1 -4.207764 AK2 -1.735840 THETAD X 97.61353 THETAD Y -76.86035 THETAD Z 21.07178 TIG 2899.060 DELLT4 1139.650 RTARG X -6163634* RTARG Y 2176504* RTARG Z 21.235646* TG 9 2.730000 PIPTIME1 2331.940 DELV X .0000000 DELV Y .0000000 DELV Z -1.228500 PACTBFF -1.233700 YACTBFF 1.115075. DELV X .0000000 DELV Y .0000000 DELV Z -1.228500 PACTBFF -1.233700 YACTBFF 1.115075. DELV X .7088408E-01 AK -4833984 AK1 -4.416504 AK2 -1.812744 THETAD X 97.61353 THETAD Y -76.86035 THETAD Z 21.07178 ELEV -41.07942 CENTANG 61.50000 CEMMAS 25940.00 ERRRRX -4724121 ERRGRY 4.504395 ERRBKZ 1.834717 WBBD/BCR .0000000 CEMMAS 25940.00 ERRRRX -4724121 ERRGRY 4.504395 ERRBKZ 1.834717 WBBD/BCR .0000000 CEMMAS 25940.00 ERRRRX -4724121 ERRGRY 4.504395 ERRBKZ 1.834717 WBBD/BCR .0000000 CEMMAS 25940.00 ERRRRX -4724121 ERRGRY 4.504395 ERRBKZ 1.834717 WBBD/BCR .0000000 CEMMAS 25940.00 ERRRRX -4724121 ERRGRY 4.504395 ERRBKZ 1.834717 WBBD/BCR .0000000 CEMMAS 25940.00 ERRRRX -4724121 ERRGRY 4.504395 ERRBKZ 1.834717 WBBD/BCR .0000000 CEMMAS 25940.00 ERRRRX -4724121 ERRGRY 4.504395 ERRBKZ 1.834717 WBBD/BCR .0000000 CEMMAS 25940.00 ERRRRX -4724121 ERRGRY 4.504395 ERRBKZ 1.834717 WBBD/BCR .0000000 CEMMAS 25940.00 ERRRRX -4724121 ERRGRY 4.504395 ERRBKZ 1.834717 WBBD/BCR .0000000 CEMMAS 2599114E-02 WY DEG/S -598670ZE-02 WZ DEG/S .5595292E-01 CBNFIG 1.0000000 AXSCM/S2 .0000000 AXSCM/S2 .0000000 AXSCM/S2 .0000000 AXSCM/S2 .1608977E-02 ERR RX -472402 JET TUEL 4.42229 SLBSH RP .7-300	-	El VOND o or	2000 (2) 4012 4	manada El Adilio	2 00224 51	1010 0 10001	El tolon la tonne	FLACIO F LODE	et tollo	On-re El tolio	7 45454
RCSFLAGS 00001 RCSFLAGS 00000 RSBB0 42106 RSBBG+1 03434 CADRFLSH 56016 CADR+1 73174 CADR+2 50160 FAILREG 00000 FAILRG+1 00000 FAILRG+2 00000 PIPA X 77777 PIPA 77777 PIPAZ 77760 FLAG 10 00000 FAILRG 11 00000 PIPABDES 00120 HBDLFLAG 00000 DAPDATRI 11113 DAPDATRI 111113 DAPDATRI 111113 DAPDATRI 11111 REPBCTR 00001 IMBDE 30 36000 IMBDE 33 26000 CHAN 11 01440 CHAN 12 00040 CHAN 13 00100 CHAN 14 00000 CHAN 30 37373 CHAN 31 37777 CHAN 32 77777 CHAN 33 67765 CDUX 98.97583 CDUY -78.91479 CDUZ 25.23560 CDUT -19.76715 ADBT/ -6236136E-03 ADBT/BBP, 1268963 ADBT/BBP, 1268963 ADBT/BBP, 1268963 THETAD Y -76.886035 THETAD X -18.2744 THETAD X -18.2744 THETAD X -18.2744 THETAD X -18.2744 THETAD X -18.2744 THETAD X -18.2744 THETAD X -18.2744 THETAD X -18.2744 THETAD X -18.2744 THETAD X -18.2744 THETAD X -18.2744 THETAD X -18.2745 THETAD X -1					2 00334 FL	. NGWD 3 10004	FLAGWD 4 10000	FLAGNU 5 40202	FLAGND 6	30000 FLAGND	/ 14140
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